



REPORT

ON THE

**Health of the County
Borough of Belfast
for the Year 1964**

Dr. JAMES McA. TAGGART
Medical Officer of Health



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COUNTY BOROUGH OF BELFAST

Health Committee

1964

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Deputy Chairman:

Councillor JOHN SAMUEL ROLSTON HARCOURT

Aldermen:

THOMAS GIBSON HENDERSON

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Councillors:

JOHN SAMUEL ROLSTON HARCOURT

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Dr. KENNETH BEW

JOHN BLACK

GERARD FITT, M.P.

PATRICK O'DONNELL FOX

JOHN GERARD O'HARE

GERALD THOMPSON

HEALTH DEPARTMENT
STAFF AS AT 1st AUGUST, 1965

Medical Officer of Health and Port Medical Officer:—

J. McA. Taggart, M.B., B.Ch., D.P.H., D.P.A., F.R.S.H.

Deputy Medical Officer of Health and Deputy Port Medical Officer:—

W. J. McLèod, M.D., D.P.H., D.P.A., Ph.C.

HEADQUARTERS:—

Administrative Officer:— S. N. Smith, B.Com.Sc.

Administrative Branch:—

3 Receptionist/Operators.

Accounts Branch:—

1 Clerk Higher Division Grade I; 1 Clerical Officer; 3 Clerical Assistants.

Stores Branch:—

1 Clerk Higher Division Grade I; 1 Clerical Officer; 2 Clerical Assistants; 1 Storekeeper; 2 Storemen.

Registration Branch:—

Superintendent Registrar of Births, Deaths and Marriages — J. C. Walker.

1 Deputy Supt. Registrar; 4 Registrars; 3 Deputy Registrars; 2 Typists.

Typing Branch:—

1 Supervisor of Typists; 5 Shorthand Typists; 2 Typists.

ENVIRONMENTAL HEALTH DIVISION:—

Senior Medical Officer—vacant.

Executive Officer—G. H. Davis, E.R.D.

Infectious Diseases Branch:—

Medical Officer—J. A. Gilmore, M.B., D.P.H.

1 Clerk Higher Division Grade II; 10 Clerical Assistants.

Sanitary Branch:—

Chief Public Health Inspector

—W. Jenkins.

Senior Food Inspector

—R. J. Coulter

Senior Pests and Disinfecting Officer

—W. Robinson

Senior Inspector of Factories and Shops

—P. J. McMahon

Senior Smoke Officer

—C. Ellison.

Senior Port Public Health Inspector

—W. A. McBride

Senior Housing Inspector

—A. Bunting

Divisional Public Health Inspector, South

—W. N. Shields

Divisional Public Health Inspector, West

—F. W. Hill

Divisional Public Health Inspector, East

—T. F. Mills

Divisional Public Health Inspector, North

—J. Thompson

6 Food and Drugs Inspectors; 2 Port Public Health Inspectors; 3 Factory and Shops Inspectors; 1 Smoke Inspector; 3 Housing Inspectors; 18 Public Health Inspectors; 6 Pests Officers; 13 Pupil Public Health Inspectors.

1 Clerk Higher Division Grade I; 2 Clerks Higher Division Grade II; 1 Clerk Higher Division Grade III; 3 Clerical Officers; 8 Clerical Assistants; 1 Notice Server; 4 Drivers; 1 Attendant (Dis. Stn.); 1 Labourer.

Meat Inspection Branch:—

City Veterinarian—J. F. Gracey, Ph.D., B.Agr., M.R.C.V.S., D.V.S.M.

Senior Meat Inspector—G. F. Moore.

6 Meat Inspectors; 1 Clerical Assistant.

MATERNITY AND CHILD HEALTH DIVISION:—

Senior Medical Officer	— H. A. Warnock, M.D., B.Sc., D.P.H.
Clinic Medical Officer	— K. M. Cathcart, M.B., D.P.H.
9 Part-time Medical Officers	
Superintendent Nursing Officer	— Miss M. F. J. Baird, M.B.E., S.R.N., S.C.M., H.V.Cert.
Deputy Superintendent Nursing Officer	— Mrs. M. E. Duke, A.R.R.C., S.R.N., S.C.M., H.V.Cert.
Superintendent of District Nurses	— Miss H. A. Harris, S.R.N., S.C.M., H.V.Cert., Q.N.
Supervisor of Midwives	— Mrs. M. A. Whinnery, S.R.N., R.S.C.N., S.C.M.
Area Superintendent Health Visitors	— Miss J. Stirling, S.R.N., S.C.M., H.V. Cert. — Miss K. Smyth, S.R.N., S.C.M., H.V.Cert., T.A.Cert. — Miss D. E. McFarland, S.R.N., S.C.M., H.V.Cert.

First Assistant Superintendent of District Nurses:—

Miss D. Ritchie, S.R.N., S.C.M., H.V. Cert., Q.N.

Second Assistant Superintendent of District Nurses:—

Mrs. A. Beattie, S.R.N., S.C.M., Q.N.

58 Health Visitors; 50 District Nurses; 3 State Registered Nurses; 3 Enrolled Nurses;
2 Senior Midwives; 23 Midwives (salaried); 10 Midwives, (fee-per-case).

Chiropodists : 6 full-time, 2 part-time.

Administrative Assistant — A. Watson, A.C.I.S.

I Higher Division Clerk, Grade II; 1 Higher Division Clerk Grade III; 2 Clerical Officers;
1 Shorthand Typist; 1 Typist; 13 Clerical Assistants; 9 Clinic Clerks (part-time);
3 Cook-Housekeepers; 4 Clinic Caretakers

SCHOOL HEALTH DIVISION:—

Senior Medical Officer — A. L. Walby, M.B., D.P.H.

Clinic Medical Officers:— A. D. Campbell, M.B., D.P.H.
E. A. M. McMordie, M.B., D.P.H.
P. S. Kerr, M.B., D.P.H.
K. McKee, M.D., D.P.H., D.C.H.

Medical Officers: — E. E. Mercer, M.B., D.P.H.
D. B. Keith, M.B., D.P.H.
G. K. Moffatt, M.B., D.P.H.
K. M. Corbett, M.D., B.Sc., D.P.H., D.C.H.
S. G. Gordon, M.B., B.S., M.R.C.S., L.R.C.P., D.C.H., D.T.M.H.
F. L. O'Rourke, M.B., D.P.H.

Chief Dental Officer: — S. R. Sheane, L.D.S.

Clinic Dental Officers: — V. M. G. Rattie, L.D.S.
H. C. Thornberry, L.D.S.
P. J. R. Griffith, M.B., L.D.S.
J. R. Faulkner, L.D.S.

Dental Officers: — W. R. Morrow, L.D.S. (Decd.)
J. B. Hanna, L.D.S.
T. S. Brannigan, L.D.S.
W. J. Hutchinson, L.D.S.
H. M. Gilfillan, L.D.S.
J. S. Jassal, L.D.S.
W. J. C. Davidson, L.D.S.
O. Love, L.D.S.

7 Part-time Medical Officers (Anaesthetists); 5 Part-time Dental Officers.

4 Senior School Nurses; 19 Health Visitors; 1 Speech Therapist; 3 Speech Therapists (part-time); 2 Physiotherapists; 1 Chief Dental Clerk; 3 Senior Dental Surgery Assistants; 28 Dental Surgery Assistants.

Executive Officer — F. J. Lyttle

1 Clerk Higher Division Grade II; 1 Clerical Officer; 5 Shorthand Typists; 1 Typist; 1 Senior Clerical Assistant; 12 Clerical Assistants; 2 Clinic Caretakers; 1 Clinic Attendant.

CITY AND COUNTY BOROUGH OF BELFAST

SUMMARY OF STATISTICS. 1964

LATITUDE 54° 37" N.: LONGITUDE 5° 55" W.

AREA (Census 1961: excluding 2,237 acres tidal water): 15,815 acres (24.7 sq. miles)

POPULATION per acre 26: per square mile: 16,610.

INHABITED BUILDINGS (Census 1961): 114,889.

RATEABLE VALUATION (1964/65): £5,130,656.

PRODUCT OF A PENNY RATE (1964/65): £20.559.

MARRIAGES: 3,638 MARRIAGE RATE: 8.9.

		1964	1963	Average 1954-63
Live Births (M. 4,469; F. 4,250)	..	8,719	8,839	8,472
Rate .. .. ..	..	21.3	21.5	19.5
Still Births (M. 114; F. 98)	..	212	173	222
Rate (per 1,000 total births) ..	..	24	19	25.5
Illegitimate Live Births (M. 135; F. 138)	..	273	260	217
Percent of Live Births .. ..	..	3.1	2.9	2.6
Deaths (M. 2,376; F. 2,341) ..	..	4,717	5,046	4,810
Rate .. .. ..	..	11.5	12.2	11.1
Infant Mortality (M. 151; F. 115) ..	..	266	259	270
Rate (per 1,000 live births) ..	..	31	29	32
Neo-natal Mortality (M. 104; F. 71) ..	..	175	168	175
Rate (per 1,000 live births) ..	..	20	19	21
Peri-natal Mortality (M. 96; F. 63) ..	..	371	323	372
Rate (per 1,000 total births) ..	..	42	36	43
Maternal Deaths .. ..	..	3	3	4
Rate (per 1,000 total births) ..	..	0.34	0.33	0.5

	Deaths	Death Rate
Measles	Nil	—
Diphtheria	Nil	—
Whooping Cough	1	0.00
Dysentery	Nil	—
Poliomyelitis	Nil	—
Influenza	5	0.01
Tuberculosis (respiratory)	34	0.08
Tuberculosis (other forms)	5	0.01

To:

The Right Honourable The Lord Mayor, Aldermen and Councillors of the Belfast County Borough Council acting as the Belfast Health Authority and the Belfast Port Sanitary Authority.

My Lord Mayor, Ladies and Gentlemen,

I have pleasure in presenting my report on the work of the Health Department and the health of the City for the year 1964.

Population:

The Registrar General estimates the population in December, 1964, as 410,300 (males 193,500, females 216,800), a reduction of 1,700 compared with 1963. During the past thirteen years the city's population has shown a gradual decline, being now 33,371 less than in the 1951 census. This is in keeping with the trend in other large cities with restricted boundaries which show population drift to new housing areas and it will continue with future slum clearance and redevelopment programmes.

Births and Deaths:

There was a reduction in the number of live births registered, 8,719 (birth rate 21.3) as compared with 8,839 (birth rate 21.5) in 1963. Infant mortality showed a small increase, there being 266 deaths of infants in the first year of life compared with 259 in 1963 (present rate 31 per 1,000 live births). Both neo-natal mortality (death of infants in the first month of life), 175 deaths and peri-natal mortality (still births and deaths under one week), 371 deaths, were higher than in 1963. The peri-natal mortality rate of 42 is above the Northern Ireland average of 35 and has shown only slight reduction during the past ten years. There has been a substantial reduction in infant death rate in the first year of life during the past decade but the fall in neo-natal and peri-natal death rate has been much less marked. Congenital abnormalities, birth injuries and prematurity are important causes of death in these early weeks of life and influences operating during and immediately after birth cause over 90% of neo-natal deaths. Many of these deaths are unavoidable, many are due to congenital abnormalities incompatible with life but many are preventable by more careful ante-natal supervision and better co-operation between the expectant mother and her medical advisers. During 1964 78.3% of confinements related to Belfast were conducted in hospital, nursing home or in general practitioner maternity units and as this percentage increases with greater availability of maternity beds infant mortality in the peri-natal period ought to show a corresponding decrease.

The number of deaths at all ages registered showed a decrease in 1964, 4,717 as against 5,046' i.e., a death rate per 1,000 of the population of 11.5 as compared with 12.2 for 1963.

Tuberculosis:

Deaths from all forms of tuberculosis, 39, showed a decrease of 16 from the figure for 1963 and the downward trend in the numbers of this disease notified continued to a record low total of 189 (209 cases in 1963).

Cancer:

There were 794 deaths from all forms of cancer as compared with 788 in 1963. Deaths from cancer of the lungs and bronchi showed a slight increase to 197 (males 164, females 33) as compared with 195 (males 165, females 30) in 1963. An analysis of the deaths from malignant neoplasms is given in Table 8.

Infectious Disease:

The incidence of notifiable infectious disease was again below the average of recent years and no major outbreaks occurred. Although no cases of poliomyelitis were reported in Belfast during the year, at the time of writing an outbreak has occurred in Blackburn, 52 patients having contracted poliomyelitis, 23 of these with paralysis. This is an unpleasant reminder of what can happen when this disease strikes a comparatively unprotected community. Effective and safe vaccines are available for the prevention of poliomyelitis and it is vitally important that parents should ensure that their children are protected by immunisation. We cannot expect to control poliomyelitis completely until a much higher proportion of our child population is effectively immunised. Immunisation is available free of charge either from the family doctor or at one of the Health Committee's clinic sessions. In

Belfast there are over one hundred clinics a month to which parents can bring their children for immunization in addition to clinics held in schools.

Home Nursing Service:

The number of visits made by home nurses to patients under treatment in their own homes showed a further increase during the year (231,914 in 1964 compared with 217,309 in 1963). With the tendency to earlier discharge from hospital and greater emphasis now placed on community care, especially care of the aged, the burden on the local authority nursing services will continue to increase. In order to meet the demand for additional home nursing staff it will in the future be essential for recruitment into this branch of the service to be considerably stepped up.

A feature of the home nursing service worthy of mention is the ever increasing number of disposable incontinence pads issued to patients. Many of these patients are aged, others suffer from diseases which render them bedridden and all are confronted with the distressing problem of incontinence. The issue of disposable incontinence pads, free of charge, to deserving cases is under the control of the family doctors and nursing staff. Each case is individually approved and periodic checks are made to ensure that excessive demands are not made on this service. The fact that 155 incontinent patients received a total of 155,600 pads during the year is an indication of the need for a service such as this, which is not only a comfort to the patients but also greatly eases the heavy burden on the relatives who are nursing them at home and caring for their every need.

General Sanitary Services:

The Sanitary Department continued its wide and varied range of duties throughout the year. The shortage of qualified Public Health Inspectors again restricted some branches of the Department's work and it would appear that the shortage of qualified officers will continue until Public Health Inspectors at present under training gradually obtain their full qualification. The Department was 16 officers under establishment at the end of the year and officers under training numbered 13.

Imported Food:

During the typhoid outbreak in Aberdeen in June, 1964, our Food and Drugs Officers were engaged for some days in a search for stocks of Argentine corned beef which has been packed in establishments implicated in the Ministry of Health investigations. A total of 1½ tons of this corned beef was discovered in shops and warehouses and detained in accordance with the Ministry's instructions. The entire consignment was eventually returned in sealed container to Britain to await an official decision regarding its ultimate disposal.

In November, 1964, our officers examined 2,481 cans (each of 4 lbs. weight) of imported pressed sandwich ham and found them to be unfit for human consumption. They were destroyed following the issue of a Magistrate's Order. This was part of a consignment of 237 cases of 12x 4 lb. tins imported into Northern Ireland during the month of August, 1964. All the tins in this consignment were found to be faulty, the remainder being dealt with in small lots at various wholesale premises. A total of over 3 tons of this product had eventually to be destroyed. In view of the unsatisfactory condition of this foodstuff and the fact that it was widely distributed throughout the United Kingdom, the matter was referred to the Ministry of Health and Social Services for appropriate investigation and necessary action in the country of origin. The above incidents indicate the importance of the Food and Drugs and Port Sanitary Authority's control of imported food. During 1964, 414,394 tons of foodstuffs entered Northern Ireland through the Port of Belfast. Responsibility for ensuring that imported food is safe rests primarily on the trades concerned but under the Public Health (Imported Food) Regulations the first check must lie with the officers of the Port Sanitary Authority. Their vigilance in the control of imported food is a first line of defence in safeguarding the public health and constitutes an effective deterrent to any would-be exporter of unsound food to this country.

It is with deep regret that we record the accidental death in January, 1964, of James Johnston Graham, one of our Pests Officers who died instantly following a fall into an open hold during the inspection of a Danish cargo ship at Richardson Wharf. Rodents and insect pests on ships tend to harbour in dark and almost inaccessible places, so that the work of the Port Pests Officer is especially arduous and often dangerous. The risks involved are those inherent in the inspection of ships, e.g., dim lighting in holds and between decks, steep metal ladders, obstructions under foot, treacherous surfaces from spilled oil and grease, etc. Fortunately serious accidents are comparatively rare as these men are constantly aware of the dangers involved and it is most regrettable that Mr. Graham should have met his death in this way in the course of his duty.

This report contains statistical information as required by the Ministry of Health and Social Services and the officers in charge of each section give a detailed account of the various duties carried out by their Divisions.

I would like to express my gratitude to the Chairman and members of the Health Committee for their consideration and support in furthering the cause of health in the City; the Town Clerk, Heads and other officers of Corporation departments with whom my work is closely associated and finally the staff of the Health Department for their continued conscientious service and for their loyalty, co-operation and support throughout the year.

I have the honour to be

My Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

J. McA. TAGGART,

Medical Officer of Health and Port Medical Officer

CAUSES OF DEATH AT DIFFERENT AGE PERIODS, 1964

TABLE 1

Abbre-viated List Nos.	Causes of Death	Total Deaths	MALES												FEMALES													
			AGED												AGED													
			All Ages	Total Under 1 year	5-14	15-24	25-44	45-64	65-74	75 & over	All Ages	Total Under 1 year	5-14	15-24	25-44	45-64	65-74	75 & over	All Ages	Total Under 1 year	5-14	15-24	25-44	45-64	65-74	75 & over		
B1	All Causes	4,717	2,376	104	35	12	151	8	15	21	88	715	703	675	2,341	71	29	15	115	8	11	14	65	469	615	1,044		
B2	Tuberculosis of Respiratory System	34	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B3	Tuberculosis, other Forms	5	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B4	Syphilis and its sequelae	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B5	Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B6	Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B7	Dysentery, all Forms	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B8	Scarlet Fever and streptococcal sore throat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B9	Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B10	Whooping Cough	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B11	Meningococcal Infections	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B12	Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B13	Acute Poliomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B14	Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B15	Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B16	Typhus and other Rickettsial diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B17	Malaria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B18	Other Infections and Parasitic Diseases	5	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
B19	Malignant Neoplasms, including neoplasms of lymphatic and haematoopoietic tissues	794	438	—	1	—	—	1	—	—	1	2	16	177	145	96	356	—	—	—	—	—	—	—	—	—		
(a)	Cancer	32	21	—	—	—	—	—	—	—	2	3	—	—	6	6	4	11	—	—	—	—	—	—	—	—		
(b)	Hodgkin's disease and Leukaemia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	4	—	6	—	—	—	—	—	—	—		
B20	Benign and unspecified neoplasms	13	7	—	—	—	—	—	—	—	—	—	—	—	—	3	4	—	6	—	—	—	—	—	—	—		
B21	Diabetes Mellitus	19	6	—	—	—	—	—	—	—	—	—	—	—	—	2	3	13	—	—	—	—	—	—	—	—		
B22	Anaemias	21	6	—	—	—	—	—	—	—	—	—	—	—	—	1	1	4	15	—	—	—	—	—	—	—	—	
B23	Vascular Lesions affecting Central Nervous system	653	223	—	—	—	—	—	—	—	—	—	—	—	—	4	39	79	101	430	—	—	—	—	—	—	—	—
B24	Nonmeningococcal Meningitis	5	3	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	2	—	—	—	—	—	—	—	—	
	Rheumatic Fever	3	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	2	—	—	—	—	—	—	—	—	

Number of deaths, death rates and percentages of total deaths by age groups

TABLE 2

Age Group (Years)	Deaths			Rate per 1,000 of population of age group (based on 1961 Census figures)	Percentage of total deaths
	Male	Female	Total		
Under 1 Year	151	115	266	31.7	5.6
1—4	8	8	16	0.5	0.3
5—14	15	11	26	0.4	0.6
15—24	21	14	35	0.5	0.7
25—44	88	65	153	1.5	3.2
45—64	715	469	1,184	11.9	25.1
65—74	703	615	1,318	46.8	27.9
75 and over	675	1,044	1,719	124.4	36.4

Principal causes of death in order of importance

TABLE 3

1.	Heart Disease (B26-27)	1,433
2.	Cancer	794
3.	Vascular lesions affecting the central nervous system	653
4.	Bronchitis	284
5.	Pneumonia	284
6.	Violent and accidental deaths	164
7.	Hypertension	112
8.	Associated with prematurity	94
9.	Chronic Rheumatic Heart Disease	79
10.	Congenital malformations	66

Comparative Statistics for Counties and County Boroughs, 1964

TABLE 4

Area	Rate per 1,000 population				Rate per 1,000 births		Still-birth rate per 1,000 total births	Accidental deaths
	Marriage	Birth	Death	Death rate from tuber- culosis	Infant Mortality (1,000 live)	Maternal mortality total 1,000		
Northern Ireland	7.3	23.6	10.5	0.06	26	0.14	19	515
Belfast C. B.	8.9	21.3	11.5	0.09	31	0.34	24	136
Londonderry C. B.	7.7	31.8	9.5	0.09	30	0	20	17
Co. Antrim	6.5	24.5	9.6	0.05	25	0.14	16	97
Co. Armagh	6.9	25.8	11.1	0.05	24	0	17	43
Co. Down	6.4	21.8	10.4	0.03	25	0	17	109
Co. Fermanagh	6.2	21.9	11.0	0.02	21	0	25	16
Co. Londonderry	7.5	26.9	9.5	0.03	24	0	19	44
Co. Tyrone	6.3	23.8	10.5	0.04	23	0.57	19	53

Trend of mortality from certain principal causes of death from 1910

TABLE 5

Year	Heart Disease		Cancer		Pulmonary Tuberculosis		Bronchitis, Influenza and Pneumonia	
	Number	Rate Per 1,000	Number	Rate Per 1,000	Number	Rate Per 1,000	Number	Rate Per 1,000
1910	—	—	—	—	825	2.1	1,538	3.9
1915	—	—	—	—	813	2.0	1,667	4.1
1920	—	—	—	—	762	1.8	1,566	3.8
1925	—	—	—	—	575	1.3	1,163	2.7
1930	852	2.0	466	1.12	346	1.0	839	2.0
1935	935	2.0	463	0.99	389	0.89	1,042	2.23
1940	1,387	3.1	576	1.29	412	0.93	1,001	2.25
1945	1,130	2.59	664	1.52	326	0.75	533	1.22
1950	1,500	3.33	717	1.59	225	0.5	565	1.26
1951	1,630	3.67	693	1.56	221	0.49	813	1.83
1952	1,416	3.18	757	1.7	151	0.34	483	1.0
1953	1,155	2.56	758	1.68	114	0.26	466	1.03
1954	1,348	3.0	777	1.7	84	0.18	482	1.07
1955	1,365	3.0	741	1.6	76	0.17	597	1.3
1956	1,297	2.9	840	1.89	74	0.16	471	1.06
1957	1,383	3.14	844	1.9	60	0.13	592	1.34
1958	1,493	3.42	822	1.88	56	0.13	549	1.25
1959	1,443	3.33	802	1.85	62	0.16	657	1.51
1960	1,476	3.4	793	1.84	28	0.07	546	1.25
1961	1,425	3.4	763	1.83	35	0.08	876	2.1
1962	1,428	3.45	777	1.87	39	0.09	520	1.25
1963	1,616	3.92	788	1.91	52	0.13	672	1.63
1964	1,433	3.5	794	1.94	34	0.08	580	1.41

— Signifies information not available

Comparative Statistics: Belfast, Northern Ireland, England and Wales,
Scotland and Irish Republic, 1964

	Belfast	Northern Ireland	England and Wales	Scotland	Irish Republic (See Note)
1. Rates per 1,000 Population:					
Marriages	8.9	7.3	7.6	7.7	5.6
Births	21.3	23.6	18.5	20.0	22.5
Deaths	11.5	10.5	11.3	11.7	11.5
2. Death rate per 1,000 births:					
Maternal	0.34	0.14	0.25	0.23	0.48
Infant	31	26	20	24	27
3. Death rates per 100,000 population:					
Tuberculosis	9.5	5.7	5.2	7.2	13.1
Cancer	193	157	213	221	166
Heart Diseases (B25-28)	389	388	367	397	382
Coronary disease	256	217	226	261	170
Diphtheria	Nil	Nil	Nil	0.0	0.2
4. Still-birth rate per 1,000 total births	24	19	16	18	—

Note: Figures for Irish Republic provisional

Population, births, birth rate per 1,000, deaths, death rate per 1,000 and natural increase from 1890

TABLE 7

Year	Population	Births		Deaths		Natural increase
		Number	Rate	Number	Rate	
1890	232,222	8,250	35.5	6,861	29.5	1,389
1895	295,000	9,772	33.1	7,168	24.3	2,604
1900	359,000	11,192	31.2	7,642	21.3	3,550
1905	360,000	11,395	31.8	7,178	20.0	4,217
1910	391,167	10,888	27.8	7,284	18.6	3,604
1915	403,000	10,196	25.3	7,220	17.9	2,976
1920	413,000	12,144	29.4	7,234	17.5	4,910
1925	438,000	10,234	23.4	6,131	14.0	4,103
1930	415,151	9,558	22.7	5,451	12.9	4,107
1935	415,151	8,848	21.3	6,238	15.0	2,610
1940	444,500	8,704	19.6	6,583	14.8	2,121
1941	444,500	8,383	18.9	6,641	14.9	1,742
1942	444,500	9,659	21.7	4,973	11.2	4,686
1943	425,000	10,713	25.2	5,511	13.0	5,202
1944	430,800	10,456	24.3	5,176	12.0	5,280
1945	435,900	9,853	22.6	5,069	11.6	4,784
1950	450,000	8,834	19.6	5,082	11.3	3,752
1951	444,222	8,789	19.8	5,433	12.2	3,356
1952	444,200	8,506	19.1	4,778	10.8	3,728
1953	450,800	8,527	18.9	4,653	10.3	3,874
1954	449,100	8,302	18.5	4,810	10.7	3,492
1955	453,900	8,100	17.8	4,752	10.5	3,348
1956	444,800	8,212	18.5	4,632	10.4	3,580
1957	440,100	8,459	19.2	4,899	11.1	3,560
1958	436,200	8,263	18.9	4,818	11.0	3,445
1959	433,800	8,365	19.3	4,821	11.1	3,544
1960	433,900	8,736	20.1	4,737	10.9	3,999
1961	416,500	8,806	21.1	4,989	12.0	3,817
1962	413,900	8,636	20.9	4,594	11.1	4,042
1963	412,000	8,839	21.5	5,046	12.2	3,793
1964	410,300	8,719	21.3	4,717	11.5	4,002

Deaths from cancer by sex and site in 1964

TABLE 8

Detailed List Nos.	Sites	Males	Females
	Buccal Cavity and Pharynx		
140	Lip	2	—
141	Tongue	2	2
142	Salivary gland	1	1
143—144	Mouth	6	1
145—148	Pharynx	2	—
	Digestive Organs and Peritoneum		
150	Oesophagus	14	11
151	Stomach	64	47
152—153	Intestines	30	52
154	Rectum	22	20
155—156	Biliary passages and liver	12	11
157	Pancreas	24	11
158	Peritoneum	1	1
159	Other digestive organs	1	—
	Respiratory System		
160	Nose, nasal cavities, etc.	—	—
161	Larynx	4	1
162—163	Trachea, bronchus and lungs	159	31
164	Mediastinum	1	1
165	Thoracic organs (secondary)	—	—
	Breast and Genito-Urinary Organs		
170	Breast	2	72
171—174	Uterus	—	25
175	Ovary, Fallopian tube and broad ligament	—	11
176	Other female genital organs	—	—
177	Prostate	29	—
178	Testis	—	—
179	Other male genital organs	—	—
180	Kidney	4	4
181	Bladder and other urinary organs	22	9
	Other and Unspecified Sites		
190—191	Skin	3	3
192	Eye	1	1
193	Brain and other parts of the nervous system	4	11
194	Thyroid gland	1	4
195	Other endocrine glands	2	—
196	Bone	1	3
197	Connective tissue	2	—
198—199	Other Sites	12	8
200—202 } 203—205 }	Neoplasms of lymphatic and haematopoietic tissues (exclusive of Hodgkin's disease, leukaemia, etc.)	10	15
	Total	438	356

Deaths from certain communicable diseases from 1890

TABLE 9

Year	Meningo-coccal infections	Diphtheria	Dysentery	*Gastro-Enteritis	Measles	Polio-myelitis	Scarlet fever	Typhoid fever	Whooping cough	Influenza
1890	—	37	—	247	378	—	41	177	292	—
1895	—	34	—	325	197	—	88	184	109	—
1900	—	54	—	241	42	—	14	261	115	—
1905	—	32	—	295	227	—	35	128	24	—
1910	3	27	—	241	504	—	18	18	259	—
1915	39	27	—	240	177	0	107	10	134	—
1920	4	45	1	223	132	0	94	34	84	243
1925	0	38	0	203	167	0	49	18	99	84
1930	—	22	0	116	6	—	7	2	65	38
1935	0	55	0	249	251	2	37	11	22	65
1940	22	85	0	316	150	1	10	1	54	161
1945	2	7	1	188	10	4	2	1	26	16
1950	5	3	0	37*	5	11	2	1	16	32
1951	4	1	4	54	3	2	1	0	4	232
1952	4	0	0	43	4	2	0	0	10	18
1953	2	0	0	70	3	1	0	0	8	24
1954	2	0	0	29	2	1	0	0	2	20
1955	5	0	3	31	2	0	0	0	10	34
1956	10	0	1	8	0	1	0	0	6	27
1957	0	0	0	12	2	2	0	0	1	63
1958	1	0	1	13	0	0	0	0	5	13
1959	3	0	3	12	1	0	0	0	7	40
1960	0	0	2	10	0	1	0	0	0	8
1961	0	0	0	13	2	3	0	0	0	124
1962	2	0	1	16	0	0	0	0	3	16
1963	1	0	0	5	0	1	0	0	0	20
1964	1	0	0	12	0	0	0	0	1	5
Average Annual Deaths 1954-63	2.4	0	1.2	14.9	0.9	0.9	0	0	3.4	36.5

* From 1950 onwards, deaths of those under 2 years of age only.

Notifications of certain communicable diseases from 1900

TABLE 10

Year	Cerebro-Spinal fever	Diphtheria	Dysentery	Food-poisoning	Gastro-Enteritis	Infective hepatitis	Measles	Polio-myelitis	Puerperal pyrexia*	Scarlet fever	Typhoid fever	Whooping cough
1900	—	407	—	—	—	—	—	—	44	658	1,777	—
1905	—	234	—	—	—	—	—	19	650	631	—	—
1910	—	238	—	—	—	—	—	16	734	95	—	—
1915	65	179	—	—	—	—	—	6	1,994	49	—	—
1920	8	300	—	—	—	—	—	48	1,939	210	—	—
1925	5	423	—	—	—	—	—	5	1,657	143	—	—
1930	24	118	—	—	—	—	—	9	20	1,132	32	—
1935	19	1,201	—	—	—	—	—	22	31	3,394	117	337
1940	166	1,165	—	—	—	—	—	2	9	1,266	17	701
1945	39	213	—	—	—	—	—	1	768	14	603	—
1950	22	45	35	55	377	28	4,209	20	1	1,668	5	1,078
1951	34	10	170	40	560	54	3,354	109	4	349	24	834
1952	44	3	69	16	489	74	2,702	36	4	399	7	2,131
1953	29	1	112	26	614	69	3,146	65	56	399	7	945
1954	32	1	217	23	513	59	1,613	14	42	496	5	773
1955	26	0	401	29	689	65	4,328	1	46	791	23	1,460
1956	20	0	198	31	412	166	1,797	9	37	540	8	790
1957	14	0	269	18	410	112	4,109	141	50	492	4	119
1958	9	0	310	24	430	83	280	11	29	384	2	1,132
1959	14	0	278	27	450	179	4,731	11	18	506	10	721
1960	12	0	276	58	455	296	487	3	36	519	0	88
1961	12	0	232	40	420	132	3,976	13	23	306	0	74
1962	13	0	326	35	401	71	1,535	5	17	194	0	635
1963	13	0	199	42	324	155	2,989	0	29	193	0	95
1964	7	0	183	10	411	265	1,904	0	16	402	0	223
Average Annual Notifications 1954-63	15	0	270	33	450	132	2,584	21	33	442	5	589

• Figures up to 1951 for Puerperal fever only

NOTES:—

1. Measles—notifiable only as the first case occurring in a household within a period of 2 months.
2. Whooping cough—notifiable only as the first case occurring in a household within a period of 3 months.

COMMUNICABLE DISEASES

During 1964 there were no cases of poliomyelitis in Belfast for the second year in succession. There were no cases of typhoid fever and none of diphtheria for the 6th and 10th consecutive years respectively. Notifications of food poisoning fell to the outstandingly low figure of 10 cases, all of sporadic occurrence. This figure, less than one quarter of the previous 10-yearly average, speaks well of the high standard of public food handling achieved in the city.

While the number of cases of dysentery notified did not change significantly from the relatively low level in 1963, the incidence of gastro-enteritis rose by 30%, undoing the improvement observed since 1961. As one-third of these cases occurred in the two months October-November, one suspects that many of these may have developed following upper respiratory tract infections, which can initiate gastro-intestinal disorder in small infants. However, it is worth repeating that the prevention of gastro-enteritis in infancy requires above all a good standard of hygiene and child care in the home, for, despite the continuing efforts of our Health Visitors, this is not always being achieved: their words often fall upon stony ground.

The incidence of whooping-cough was rather more than double that in 1963 (although this figure was still considerably less than half of the average incidence in the past 10 years). This is as expected, for, although the periodic epidemicity of the disease persists, the numbers affected and the severity of attacks, have been greatly decreased by preventive immunisation. There was one death from whooping-cough of a child too young to have been fully immunised.

Finally, with regard to tuberculosis; the incidence of this disease continues to fall, though not now so dramatically as in past years. The 1964 figure of 189 cases represents a 10% drop from that in 1963, itself a record low. It is worthy of note that for the first time this year no new cases were reported in the 10-15 years age group, that group which the School Health Service's B.C.G. vaccination programme would be expected to protect most.

IMMUNISATION

Immunisation against Diphtheria, Tetanus, Pertussis (Whooping-cough) and Poliomyelitis continued to be provided in 1964 at Health Authority clinics and by general practitioners, as was vaccination against Smallpox. B.C.G. vaccination against Tuberculosis, though available in special cases at some clinics, was predominantly carried out by the School Medical Service and is dealt with elsewhere in the report of the Senior Medical Officer of the School Health Division.

From April 1964, immunisation for infants was made still more readily available by the provision of immunisation facilities at most of the existing Child Welfare Clinics of the Maternity and Child Health Division. After trial at selected clinics, this service was speedily extended with the willing co-operation of clinic Medical Officers and Health Visitors, until by mid-year, in an average week, immunisation was available at 19 Child Welfare 'Baby Clinics,' in addition to 3 or 4 of the 10 'Immunisation only' clinics, which were retained to cope with any undue public demand or emergency, none of which occurred in the year under review. The Medical Officers and Health Visitors of the clinics concerned are deserving of thanks for their full co-operation in making a success of this reorganisation of the Immunisation service.

Quadruple vaccine (Diphtheria-Tetanus-Pertussis-Poliomyelitis) was in general use at clinics and by a majority of general practitioners, though some remained faithful to the earlier Triple vaccine given with, or followed by, oral poliomyelitis vaccine. This Quadruple vaccine proved very acceptable to parents, as it provided protection against all four diseases whilst entailing only three visits to clinic or surgery. The Department continued to co-operate with the Queen's University Department of Microbiology in assessing the prevalence and severity of febrile reactions following injection of this vaccine and it appeared that the newer, modified batches of the vaccines caused much less trouble in this respect. Furthermore, in the autumn of 1964, the Ministry advised that a different spacing of the three doses of Quadruple vaccine had been shown to provide most lasting immunity. Accordingly the third dose is now given up to 6 months after the second and it is hoped that this changed schedule will provide adequate protection until one further 'booster' dose falls due at school entry.

The Infectious Diseases Branch Medical Officer continued to visit as many primary schools as possible during the school year, offering 'booster' injections for those children who had entered school since his previous visit. For this purpose a combined Diphtheria-Tetanus-Poliomyelitis vaccine was used, providing an adequate enhancement of immunity to the three diseases in a single injection. Where records showed that a school entrant had not already received a full primary course of immunisation, such a course was initiated at school and completed on two or more subsequent visits using

Diphtheria-Tetanus-Toxoid and/or Oral Poliomyelitis Vaccine as indicated. It is disappointing to have to report that, in certain areas, despite the availability of immunisation facilities, as many as one quarter of school entrants were found not to have been adequately immunised against Poliomyelitis in infancy and a still greater proportion to have had no injections against Diphtheria or Tetanus. Evidently there are still too many parents who will only accept protective immunisation for their children once the latter are at school, where not even the minor inconvenience of a few visits to clinic or surgery is involved. To allow one's child to reach school age before being immunised, especially against Poliomyelitis could well prove disastrous.

The position regarding vaccination against Smallpox altered considerably in 1964, following repeal in December, 1963 of the law requiring compulsory vaccination in early infancy. In accordance with the consensus of expert opinion, it is now increasingly the practice to advise vaccination within the first two years of life and preferably over one year of age, following rather than preceding primary immunisation against whooping-cough, diphtheria, tetanus and poliomyelitis. It will, however, require further time to establish this on a now voluntary basis and continued exhortation and explanation by doctor and health visitor remains necessary to overcome the all too prevalent misconception that "no longer compulsory" means "no longer necessary" and even in some cases "no longer advisable." Probably the vociferous and not always well-informed public controversy which preceded repeal of the Vaccination Act was to an extent influential in producing the drastic drop in vaccination against smallpox during 1964; if so, one hopes that it will soon be forgotten. The actual figures were 1,677 primary vaccinations of children under two years of age in 1964, as compared with 3,102 vaccinations of infants under one year in 1963. This trend is far from satisfactory in the modern world of rapid air transport and consequent greater risk of smallpox importation and every effort must continue to be made to encourage voluntary vaccination at the most suitable age, until persuasion has fully replaced compulsion and vaccination becomes accepted as part of the protective regimen of childhood along with equally voluntary immunisation against whooping-cough and poliomyelitis.

Showing completed courses and booster dose given against various diseases, using varying combinations of immunising preparation.

TABLE A 1

Disease	Age at 31.12.64	Primary Course		Booster Dose	
		Completed in 1964	Cumulative Total	Completed in 1964	Cumulative Total
Diphtheria	— 5	4,345	17,164	262	436
	—15	1,350	48,223	3,279	24,242
Pertussis	— 5	4,044	16,869	128	141
	—15	142	—	115	—
Tetanus	— 5	4,377	14,962	612	2,879
	—15	1,274	8,059	3,022	7,800
Poliomyelitis	— 5	4,780	17,097	1,389	1,208
	—15	633	53,406	3,976	16,791

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Deputy Medical Officer of Health

REPORT OF THE CHIEF PUBLIC HEALTH INSPECTOR FOR 1964

Staff

The strength of the Inspectorate was further depleted during the year by the retirement of Mr. T. Gordon, one of the Meat Inspectors in the Abattoir. One other Inspector resigned on appointment elsewhere and the Department was authorised to retain the services of another Inspector for twelve months beyond retirement age because of the acute staff shortage. One additional Inspector was appointed during the year, the total under establishment strength remaining at 15. The Department suffered a loss during the year due to the tragic death of one of the Pests Officers—Mr. J. J. Graham. He met with a fatal accident while on search duty for the presence of rats on board a ship berthed at the Harbour. Pupil training was stepped up considerably by the appointment of a further 5 Pupils, bringing the total under training to 15. Examination dates for the Pupils are 2 in 1965, 3 in 1966, 4 in 1967 and 6 in 1968. During the same period 8 Inspectors will retire on reaching the age limit. It is therefore necessary that training at this high rate be continued for some years.

General

I have taken the opportunity of altering the form of the Report in certain respects but continue to use the opening paragraphs to highlight some of the events of the year. Once again I am most grateful to the senior officers of the Atmospheric Pollution, Port Health, Factories and Shops, Food and Drugs and Pests Control Divisions, for their valuable assistance in the compilation of this Report. I am also much indebted to the City Surveyor, his Chief Building Inspector, his Cleansing Superintendent and the Secretary of the Belfast and District Water Commissioners for information supplied.

Slum Clearance and Redevelopment

The Cullingtree Road redevelopment ("Area F") comprising 906 dwelling units was represented and passed by the Council and surveys of the next areas to be represented were intensified. The new law dealing with compensation for houses which, though unfit, are capable of being rendered fit at reasonable cost, necessitated the re-survey of houses already represented and those about to be. The setting up of a Housing Section to cope with this work is referred to in the Housing part of this Report.

Air Pollution

The Clean Air Act received the Royal Assent but by the end of the year the appointed day for its coming into operation had not been promulgated. Much useful publicity for Clean Air was obtained as the result of a week-long exhibition held in the City in November under the auspices of the Northern Ireland Division of the National Society for Clean Air. Interest in the subject was reflected in the considerable number of enquiries made during and after the exhibition.

Food Hygiene

The Food Hygiene (General) Regulations (N.I.) 1964 are due to come into operation in 1965, partly in January and more fully in July of that year. In order to make the provisions more easily understood, Belfast combined with other health authorities in Northern Ireland, in association with the Central Council for Health Education, to produce a guide to the Regulations. At the end of the year the Food Inspectors were delivering copies to owners of food premises and reinforcing the guide with verbal explanations of the provisions of the Regulations. The Aberdeen typhoid epidemic caused a search to be made in Belfast for tins of corned beef bearing similar serial and establishment numbers as those implicated in the outbreak. Tins found were impounded and held for disposal instructions from the Ministry of Health. A number of the Inspectors attended a course on Food Technology in the Technical College and gained much useful information on the subject.

Civil Defence Training

Two Medical Officers and five Public Health Inspectors attended a two-day course which had been specially planned for officers of local authorities. The course was supplemented by a further course in food monitoring at which two of the Public Health Inspectors were in attendance.

Meat Inspection

Efforts were made during the year to spread the "daily kill" at the Abattoir more evenly over the duty hours so that the maximum time possible could be given to the inspection of carcases. Although there were difficulties to be overcome, the experiment was meeting with some success by the end of the year.

Dumping of Refuse and Rubbish

This is fast becoming a most serious problem with unsightly eyesores in almost every district in the City and is a disgrace to the community. Most of the dumping is nocturnal, the "depositors" using traders' vans, high powered cars and the family saloon to take the rubbish from their own into someone else's district—even (as can be seen in certain areas) leaving the old car behind on the dump! This is a problem that must be tackled energetically and much re-thinking is necessary. Further reference to this subject is made elsewhere in this Report. In the section dealing with rodent and insect pest control much information is given about the war waged against vermin and insect pests. Indiscriminate dumping of rubbish handicaps this effort.

Examination of Plans

The Department dealt with 255 plans submitted by the City Surveyor for approval of public health requirements. Increases in hotel accommodation and considerable extension of eating facilities in cafes, restaurants and licensed premises are noteworthy. Proposed developments requiring approval under the Town Planning Acts are submitted as to the existence of any public health objections. 89 such applications were reported upon.

Co-operation with other Departments

Many of the other Corporation Departments utilise our services over a wide field: co-operation with these Departments is excellent and they are most helpful to us. This is how it should be and makes for good public relations and efficient progress. Satisfactory working arrangements exist with the staff of the Belfast and District Water Commissioners. Close liaison is maintained with the other Health Authorities in Northern Ireland and close and helpful contact is kept with the inspectorate of the Ministry of Health and Social Services.

SEWERAGE, SEWAGE DISPOSAL, LAND DRAINAGE AND RIVER WORKS

These works are carried out by the City Surveyor and Engineers Department either by direct labour or contract. During the year the line of the second section of the High Level Intercepting sewer was amended to fit in with proposals for the Urban Motorway Scheme. A contract for site investigation in connection with the proposed Kinnegar Sewage Works was completed during the year and as a result some revisions have had to be made in the plans for the scheme. It is anticipated that the work will go out to contract during 1965.

Work on the reconstruction of the Lisburn Road sewer from Claremont Street to University Road started during the year and is to be completed by mid-1965. The culverting of the Glenwood River between Alliance Road and Butler Street was completed during the year. Culverting of a further stretch of this river between Shankill Road and Lawnbrook Avenue should commence in 1965. Other river works carried out or to commence shortly are the culverting of the Tillysburn and Brianville streams. A tender has been accepted for the construction of a sewer to serve the Hampton Park-Annadale Avenue area.

REFUSE COLLECTION AND DISPOSAL

The work of the Cleansing Section, as far as refuse collection is concerned, has not greatly changed over the past year. The average weekly collection of household refuse was 4,000 tons and this, with 560 tons of street sweepings, was disposed of at the various tipping grounds. The Beechmount site has been completed and the tip closed. The Harbour tip is expected to close at the end of the present year, but tipping is being continued at Holywood Road and Duncrue Street. During next year about 80% of the city's refuse will be tipped at Duncrue Street. Five new 50 cubic yard continuous loading compression vehicles were purchased this year, bring the total fleet up to twelve, which are now in commission.

In the event of another severe winter, 21 snow ploughs are now available, and the conversion of the refuse vehicles into bulk gritters is progressing satisfactorily. A contract has been let for 100 bulk bins for this service which is expanding rapidly. The present stock of salt is in the region of 2,500 tons, and the additional store to hold 1,500 tons is now out to tender and should be ready for use by next winter.

WATER SUPPLIES

The City's water supply is controlled by the Belfast City and District Water Commissioners. The district served is approximately 64 square miles and extends well beyond the area enclosed by the Belfast County Borough Boundary. The population catered for in the Commissioners' area of

supply is estimated to be 541,000 and the daily consumption is about 38 million gallons including that used for industrial purposes. The needs of neighbouring local authorities are also met and bulk supplies to these amount to approximately 5 million gallons per day.

The service area is supplied from three main sources, the largest being in the Mourne Mountains, which supplies on average 24 million gallons per day. The catchment of the Kilkeel and Annalong Valleys consists of upwards of 9,000 acres of mountain slopes, free from human habitation, which were acquired by the Commissioners. The high quality of the water and the great quantity available were the determining factors in deciding on the use of these two deep valleys for catchment purposes. The Silent Valley Reservoir is capable of storing three thousand million gallons and the Ben Crom Reservoir has a capacity of one thousand seven hundred million gallons. The service reservoir is about five miles south of the City and the conduit from this point to the Mournes is some 35 miles long. The water from this source is so pure that filtration is not required, although, as a precautionary measure, it is chlorinated at the Knockbreckan service reservoir. The water is soft, the total hardness being only 15 to 19 parts per million.

The second largest source of supply is from the Woodburn area, near Carrickfergus. This catchment area consists of some 6,937 acres of uplands, a large proportion of which was acquired by the Commissioners. The catchment is almost entirely clear of human habitation. The works comprise seven storage reservoirs, from which the water is conveyed to the service reservoir at Oldpark in Belfast. The water from Woodburn, with the exception of that drawn off at Dunanney, is passed through slow sand filters at Oldpark. There are seven of these filters with a surface area of 26,628 square yards. All water from this source is also chlorinated at this point. The maximum yield of water from this catchment is about $11\frac{1}{4}$ million gallons per day and, based on the three dry-year minimum yield, should average 8 million gallons per day. The hardness of this water is in the range 85 to 95 parts per million.

The third main source is from Stonyford, near Lisburn. This catchment consists of uplands, with an area of some 5,348 acres and, as in the case of the Woodburn catchment, these lands are largely owned by the Commissioners and contain few human habitations. The works comprise a storage reservoir at Stonyford and another at Leathemstown, with filter beds at Forked Bridge and a service reservoir at Lagmore. The conduit, $8\frac{1}{2}$ miles in length, conveys the water from Stonyford and Leathemstown to Lagmore and it is passed through slow sand filters at Forked Bridge. There are six filter beds with a surface area of 16,380 square yards. The water is also chlorinated at this point. The water is moderately hard with a hardness in the range 70 to 100 parts per million. The yield of water from this catchment averages about three million gallons per day. The Commissioners supply Belfast City and District from the following service reservoirs in addition to the three main service reservoirs, viz., Knockbreckan, Oldpark High Service and Lagmore.

<i>Service Reservoir</i>	<i>Source</i>	<i>Gallons per day</i>
Whiteabbey Lower	Woodburn	1 million
Whiteabbey Upper	Woodburn	1 million
Ballysillan	Woodburn	$\frac{3}{4}$ million
Dunanney	Woodburn	$\frac{1}{2}$ million
Colinward	Woodburn	$\frac{1}{2}$ million
Ballyaghagan Upper	Woodburn	$\frac{1}{2}$ million
Whiterock Upper	Mourne	$\frac{1}{2}$ million
Whiterock Lower	Mourne	$\frac{1}{2}$ million
Ligoniel Tank	Spring	50,000

During the year 52 samples of untreated water and 36 samples of filtered water were taken at the Commissioners' Works. At the various service reservoirs 1,223 samples were taken, of which 2 were suspicious, but in none was B-colic Type I present. A further 679 samples were taken at random from consumers' taps and 18 of these were recorded as suspicious: only one had B-colic Type I present. Officials of the Water Commissioners also took 115 bacteriological samples which were examined by the Counties Public Health Laboratories.

The final stages of the triplication of the Mourne conduit, which will improve the supply to the City, has been completed and work has commenced on the Commissioners' Lough Neagh Scheme.

Water samples collected by the Health Department Staff from consumers' taps

During the year the total number of samples thus taken was 300: of this number 289 were reported as highly satisfactory and the remaining 11 samples were unsatisfactory.

The results of the unsatisfactory samples are as follows:—

TABLE B1

Coliform organisms (per 100 ml.)	Samples	Coliform organisms of faecal origin (per 100 ml.)	Samples
1—3	9	1—3	1
4—10	2	4—10	—
Greater than 10	—	Greater than 10	—

1 sample contained both faecal and non-faecal coli.

There is interchange of information between the Water Commissioners and the Health Department on the results of samples taken for bacteriological examination. Copies of results of all samples taken direct from a mains supply are forwarded to the Commissioners.

In tenement dwellings tank water is often used for more than washing or flushing purposes and for check on its suitability weekly sampling is carried out. In all 302 samples were taken for bacteriological examination and of these 291 were reported as highly satisfactory. Eleven were regarded as unsatisfactory because of the presence of coliform organisms. Follow-up action is taken where adverse results are obtained.

Samples of water from Mineral Water Manufacturers' premises

Some firms have their own private wells and where the water is used for manufacturing purposes samples are taken, along with the mains supply and the finished article, and submitted for bacteriological examination. 140 samples of mains water was sent to the Central Laboratory and of these 131 were returned as highly satisfactory. 9 were classified as unsatisfactory due to the presence of coliform organisms. 45 samples of private supplies in use for manufacturing purposes were taken and the Bacteriologist reported 42 of them as highly satisfactory. The remaining 3 were classified as unsatisfactory due to the presence of coliform organisms of faecal and non-faecal origin.

The Food Inspectors collect the samples and where an adverse report is received they re-visit the premises to ascertain the cause of contamination. Usually a fault in the filtering apparatus is found and when remedial action is completed further samples are taken.

Domestic Supplies from Wells and Springs

There are still some houses without mains supply. These are mostly situated on the periphery of the City and are dependent upon wells and springs for their supplies. Very unsatisfactory results are often obtained and occupiers are being constantly advised on measures to treat the water. Of 234 samples taken, only 67 samples were reported as satisfactory. The remaining 167 samples were shown to have coliform organisms of faecal and non-faecal origin: 100 of these samples had more than 10 organisms per 100 ml. of water, which is most unsatisfactory. For some of these houses there is little hope, if any, of a mains supply and the occupiers have always to be advised of the need for sterilisation.

SWIMMING BATHS

Enclosed Swimming Baths

Weekly inspections of 5 Corporation Swimming Baths and one in the Borstal Institution are carried out and samples from the ponds are collected monthly for bacteriological examination. During the course of 845 inspections, 1,162 tests of the water for pH and chlorine residual were done by the Public Health Inspectors. In 27 instances the tests showed the water to be above or below the agreed

standards. Bacteriologically the water was found to be of a high standard, only one adverse result being obtained out of 264 samples. This was very creditable having regard to the potential for contamination of swimming bath waters. Inspections of the Baths include the warm baths, sanitary facilities, etc., and any defects found are reported to the General Manager or the Headmaster of the Borstal School as the case may be. 11 notices of defects found were sent to the General Manager of the Baths.

Open Air Swimming Baths

There are 4 open-air pools in the City, 2 of which are controlled by the Parks and Cemeteries Department and 2 owned by public schools. Their use is seasonal and they are given the same coverage in regard to inspection, testing and bacteriological examination as is mentioned above. 132 inspections were carried out and 186 tests made for pH and chlorine residual of the waters. In 11 instances the tests showed the water to be above or below agreed standards. The 36 samples collected for bacteriological examination were all reported as highly satisfactory. This was excellent, having regard to the much greater risk of contamination of open-air ponds. No sanitary defects were found during the inspections.

HOUSING ACTS (NORTHERN IRELAND) 1890-1964

Slum Clearance and Redevelopment

During the year the Cullingtree Road redevelopment ("Area F") was represented to the Council. The area is bounded by the Cullingtree Road, Divis Street and Albert Street. It comprises 906 dwelling units, 138 lock-up business premises and a number of premises used for social and recreational purposes. The Northern Ireland Housing Trust are undertaking the planning and redevelopment of the area. Earlier in the year the Housing Trust made an offer to the Corporation to undertake the redevelopment of the area bounded by Grosvenor Road, Falls Road, Albert Street and Durham Street. This is a large area comprising approximately 3,000 dwelling units. The offer was accepted and the Health Department is providing the Trust with the statistical data necessary to enable the planning and redevelopment.

In June the Housing (Clearance and Redevelopment) Committee agreed to a proposal to extend the boundaries of redevelopment Area "C" by including an area bounded by Fairview Street, Crumlin Road, Denmark Street and Old Lodge Road. The amended figure of houses to be dealt with in Area "C" is now 1,077. The Public Health Inspectors commenced a detailed inspection of the houses in preparation for representation of the area.

The Housing (Miscellaneous Provisions) Act (N.I.) 1964 makes provision for the payment of compensation at market value for houses in redevelopment areas which, although unfit, could be made fit at reasonable cost. Reasonable cost is defined as 10 times the net annual valuation of the property. The provisions of this Act mean that all houses in areas represented or likely to be represented in the near future have had to be re-surveyed and priced schedules of repairs prepared for the purposes of the Act.

With these additional duties placed on the Department and the stepping-up of slum clearance, it was found necessary to establish a Housing Section of the Inspectorate for full time duty under the Housing Acts. A Senior Housing Officer was appointed and 3 Public Health Inspectors were transferred to the Section with pupil public health inspectors as assistants.

Proposals for dealing with unfit houses in the City were considered by the Housing (Clearance and Redevelopment) Committee during the year and it was agreed that a further 8,000 houses which would likely be in the unfit class should be grouped together in 20 proposed redevelopment areas for policy purposes. This now makes a total of about 27,000 houses in 50 redevelopment areas to be dealt with in the years that lie ahead. It was considered that there were, besides the houses in the numbered areas, approximately 1,000 additional houses scattered in small pockets throughout the City which would have to be dealt with under Housing Acts procedures. During the year 20 Closing Orders were made on individual unfit houses.

New Houses completed

(i)	<i>Private</i>	..	..	..	..	361
(ii)	<i>Corporation</i>					
	Number of houses	..	..	..	..	145
	Number of flats and maisonettes					216
	Number of old peoples dwellings					11
	Total	..	..	..	..	372

Conversion/Improvement Schemes

The City Surveyor deals with applications for grants for this purpose and the Public Health Inspectors inspected and reported on the internal conditions of 290 houses in respect of which applications were made. The Public Health Inspectors combine with the Building Inspectors of the City Surveyor's Department in dealing with applications for grants for the provision of standard amenities and 262 reports were made under this head.

Houses Let in Lodgings

The By-Laws relating to tenement dwellings were revoked by the provisions of the Housing Act (N.I.) 1963, but surveillance of this type of accommodation is maintained and any actionable nuisances are dealt with under the Public Health Acts. Inspections made and action taken are included in the chapter dealing with nuisances in dwelling houses. At the end of the year the Regulations for dealing with houses in multiple occupation, which the Ministry are empowered to make under the provisions of the Act of 1963, had not been issued. The Public Health Inspectors continue to report to the City Surveyor houses which have been converted without permission into more than one dwelling, in contravention of the Belfast Corporation (General Powers) Act 1961.

Rent and Mortgage Interest (Restrictions) Acts (N.I.) 1920-1961

Much use is still made of the provisions of these Acts by tenant and landlord alike but nothing approaching the deluge of applications which were received some years ago. Simultaneously with the issue of certificates under the Acts notices are served under the Public Health Acts for actionable statutory nuisances.

(a) During 1964:—

Certificates and reports outstanding at 1/1/64	..	..	8
Applications for certificates and reports	..	..	432
Certificates to tenants	..	..	262
Reports to landlords	..	..	107
Certificates refused	..	..	3
Reports refused	..	..	70
Applications and reports cancelled	..	..	13
Certificates and reports outstanding at 31/12/64	..	..	5

(b) Totals from 1st September, 1951 until 31st December, 1964:—

Applications for certificates and reports	..	..	43,149
Certificates to tenants	..	..	27,797
Certificates refused	..	..	517
Reports to landlords	..	..	7,429
Reports refused	..	..	5,068
Applications and reports cancelled	..	..	333

Discretionary Points system for allocation of Housing Accommodation on Medical Grounds

The Estates Superintendent sought the Department's assistance on medical certificates which had been submitted in support of 103 applications for re-housing. Reports were made by the Inspectors, the circumstances assessed by the Medical Officer of Health and the information passed to the Estates Superintendent.

Public Health Nuisances Complained of and Discovered

In the absence of severe weather such as occurred in 1963, complaints fell from the record 66,540 in that year to 36,879 in 1964. It is difficult to estimate what may be regarded as normal in the number of complaints received but there is no doubt that inclement weather is quickly reflected in the increase of calls for the Public Health Inspectors. While the majority of complaints are of structural defects the others cover many facets of human existence—some bordering on the fantastic. Some complaints uncover the most tragic stories: others expose the most squalid living conditions, some of which are incredible in this day and age. Neighbour vendettas, fantasies of disturbed minds and other conditions

for which no law of the land could ever possibly provide, cause complaints to the Department. The Inspectors need all possible patience and tact in investigating such complaints and sorting out what is actionable under the Public Health law. The tragic stories chiefly concern old people living in the most shocking conditions. Some are physically incapable of effecting improvements; others have allowed conditions to deteriorate badly and refuse help offered. In other instances, animal-like existence has been revealed; the results of disturbed minds. Such cases are referred to the Welfare Department as being persons in need of care and attention and incapable of looking after themselves.

Generally speaking there is an improvement in living conditions in the post-war years. This is particularly noticeable in the redevelopment areas where house to house surveys are carried out. Although the houses are in the main structurally unsuitable and lack all the modern amenities, the increased use of paper and paint, glass doors, fancy firegrates and modern furniture present a different picture from that of 30 years ago. "Do it yourself" publicity no doubt has an effect, but one likes to think that health education gets home as well. There are, of course, others on which no impression can be made and in such cases the full extent of the Public Health Law is enforced. It seems remarkable that, in this day, some people still live in filth and squalor and even will not take action after statutory notices have been served. Legal proceedings have then to be instituted to secure improvement of the conditions. Fortunately, they are few in number, but they are still the cause of many strong complaints and have to be dealt with.

Dumping of rubbish, refuse, etc., is the bugbear of the Department and many bitter complaints are received. A glance at many of the vacant buildings, pieces of land and back entries in the City will show how justified are the complaints. Unfortunately the law is inadequate to deal with these cases, it being principally directed against the "depositors" who are rarely, if ever, apprehended. Public Health Law can only deal with accumulations which are injurious to health: accumulations of builders' debris, garden waste, discarded household furniture, kitchen utensils, scrap iron, old cars and packaging materials are not classified as such. The ever increasing use of packaging materials for all sorts of goods creates problems of disposal and unfortunately too many people take the easy way out. One is forced to the conclusion that there is a complete lack of civic responsibility and pride and of regard for other people, in those who disfigure the vacant lands in our City. As well as new law being required a lot of re-thinking is needed on this very difficult problem. Some advocate local dumps, which could be camouflaged and cleared periodically: others consider that greater use should be made of the Corporation's services and extension of them if necessary for collection and disposal of discarded household effects. Clearance and redevelopment of some property will remove many of the hidden dumping areas, but, whatever action may be taken, there is no doubt that, given a sense of civic pride, much of the indiscriminate dumping could be eliminated.

TABLE B 2

Nuisance	Divisions				Totals
	North	South	East	West	
Drains, traps, etc., foul or defective	1,173	695	649	934	3,451
Tiling, paving or flooring defective	504	512	606	560	2,182
Sinks, defective, or want of; wastepipes foul or defective	82	71	63	116	332
Water closets foul or defective; no water closet accommodation; soil or ventilation pipes defective or want of	834	706	790	931	3,261
Dustbins defective, or want of	141	101	36	113	391
Roofs defective	1,188	1,105	1,248	1,677	5,218
Spouting defective, or want of	1,054	834	864	1,246	3,998
Damp state	2,199	1,784	2,054	2,749	8,786
Plaster on walls and ceilings defective	625	520	549	697	2,391
Domestic water supply; want of, or unsuitable	19	22	43	5	89
Lighting or ventilation insufficient, or want of	106	98	80	206	490
Schools overcrowded	4	—	—	1	5
Dwelling houses overcrowded	7	4	1	3	15
Accumulation of manure or offensive matter; offensive smells; premises or passages dirty	267	338	356	252	1,213
Fowl or animals kept so as to be a nuisance	6	6	3	3	18
Schools dirty or defective	—	—	—	—	—
Miscellaneous	1,256	1,299	1,370	1,114	5,039
Totals	9,465	8,095	8,712	10,607	36,879

Public Health Nuisances abated in dwelling houses, etc., during 1964

TABLE B 3

Nuisances abated	Divisions				Total
	North	South	East	West	
House drains cleansed	605	321	375	541	1,842
House drains repaired and relaid	145	76	93	159	473
Houses had tiling, paving, or flooring repaired	596	514	604	683	2,397
Waterclosets cleansed or repaired	768	561	678	998	3,005
Dustbins provided	111	62	44	102	319
Houses provided with new sinks	—	—	—	—	—
Roofs repaired	1,286	1,108	1,325	2,035	5,754
Spouting repaired	1,185	779	910	1,624	4,498
Passages cleansed	19	18	19	11	67
Houses cleansed	11	12	9	9	41
Minor repairs	2,142	1,872	1,572	2,153	7,739
Miscellaneous nuisances abated	152	25	33	165	375
	7,020	5,348	5,662	8,480	26,510
Length in feet of drain pipes laid	402	507	130	418	1,457
Gully and disconnecting traps provided	3	7	6	5	21

Summary for 1964 in connection with defects in dwelling houses

Nuisances complained of and discovered	36,879
Inspections	87,017
Statutory notices issued..	15,277
Sanitary improvements carried out	26,901
Summons for non-compliance with notices	911
Magistrates' Abatement orders obtained	129
Summons for disobedience of magistrates' orders	24
Amount of fines imposed	£234 16s. 0d.
Costs awarded	£61 9s. 0d.

Memoranda to other departments, etc., in connection with defects discovered

To Estates department	992
To City Surveyor's department	1,856
To Water Commissioners	774

By-Laws relating to keeping water closets supplied with sufficient water for flushing

The arrangements made with the Water Commissioners' Inspectors appear to be working most satisfactorily and have resulted in a reduction of over 50% in notices served by this Department. The number of notices served in 1963 was 1,579 and in 1964 it fell to 726. Similarly, summonses issued for non-compliance with notices served fell from 133 in 1963 to 35 in 1964.

Inspections during the year	1,452
Notices issued	726
Summons	35
Amount of fines	£73 0s. 0d.
Continuing offences under the By-Laws	4
Amount of fines in respect of these offences	£13 3s. 0d.

Buildings used for Public Entertainment

Details of inspections, tests of ventilation systems and action taken where defects were found are set out below.

Cinemas and Theatres

Number in the City	..	..	..	..	..	31
Inspections carried out	..	..	..	..	..	382
Number of tests carried out	..	..	..	..	..	138
Number of Kata thermometer recordings	..	..	..	..	..	690

In two cinemas the tests recorded air conditions below agreed standards. In one the temperature was too high and the rate of air flow too slow. In the other instance the rate of air flow was slow. The managements were notified and remedial measures were taken. In one cinema major alterations were carried out which had the effect of giving better ventilation and more comfort to the patrons.

Dance Halls

Number of premises licensed for public dancing	..	..	..	..	25
Inspections carried out	..	..	..	..	114
Defects discovered	..	..	..	..	15
Defects remedied	..	..	..	..	15
Number of tests carried out	..	..	..	..	51
Number of Kata thermometer recordings	..	..	..	..	250

TABLE B 4

Defects	Instances	Notices	Remedied
Damp and defective conditions	5	2	5
Dirty conditions	1	1	1
Sanitary conveniences:			
Not provided with proper intervening ventilated spaces	—	—	—
Not properly screened	—	—	—
Not properly ventilated	—	—	—
In a dirty state	3	1	3
In a defective condition	2	1	2
Insufficient or defective accommodation	1	1	1
Unsuitable washing facilities or want of	—	—	—
Other defects	3	2	3
Totals	15	8	15

Drain Testing

Testing of drains is generally carried out when investigating complaints of flooding, seepages, offensive smells and rat infestations. A drain tester was added to the strength of the Department and as can be seen from the details below the appointment was necessary.

Tests on complaints of rats	..	..	..	..	..	611
Tests for other complaints	..	..	..	..	..	284
Defects found by colour tests	..	..	..	..	..	29
Defects found by smoke tests	..	..	..	..	..	237
Defects found by water test	..	..	..	..	..	1
Drains repaired	..	..	..	..	..	473
Length in feet of drain pipes laid..	..	..	..	..	..	1,457 feet
Other sanitary fittings provided (gully-traps, etc.)	..	..	..	..	..	21

School Buildings

The Public Health Inspectorate have oversight of schools in many respects, including adequacy of accommodation, heating, hygiene of school meals kitchens, sampling of food, etc. Both public and voluntary schools are inspected.

Number of inspections carried out	798
Complaints of conditions from the School Health Division	6
Intimation notices concerning defects sent to	
(a) Director of Education	8
(b) Managers of voluntary schools	16
Sanitary improvements effected	14
Samples of milk supplied on contract	123

Other Premises and Locations

Routine inspections of the following are carried out in addition to inspections following complaints and appropriate action is taken where necessary.

Stabling yards—31 on Register at 31/12/64.

Inspections	417
Anti-fly treatments	303

Burial grounds

Inspections	106
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Public sanitary conveniences

Number in City	152
Inspections	2,124

Offensive trades (Hide Merchants, etc.)

Number in City	22
Inspections	113

Common lodging houses

Inspections	67
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Tipping grounds

Inspections	345
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Hairdressers

Registered at 1/1/64	474
Registered during the year	55
Deleted during the year	39
Registered at 31/12/64	490
Inspections	3,018

Rivers and streams

Inspections	1,455
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Considerable pollution of rivers takes place, as evidenced by the results of 142 samples submitted for bacteriological examination. 141 of these were reported as having coliform organisms of faecal origin. Culverting of rivers completed and to be carried out will eliminate some of the eyesores in the City due to dumping of rubbish, builders' debris, garden refuse and dead animals.

Itinerants

The Corporation has taken measures on some sites to deny access to them by itinerants. The erection of costly railings, the spiking of approach roads and concrete obstacles reminiscent of war-time have been used. In some cases the itinerants have been very persistent and have returned to the sites, only to be towed away again by tractor. Further and similar preventive measures are to be taken on other sites owned by the Corporation. Representations are made to owners of private ground on which the itinerants are encamped to secure their removal. Because of their habits and the abuse

of their surroundings there seems to be nothing else to do than move them on. 95 notices were served for abatement of nuisances and legal proceedings were instituted in 8 instances for non-compliance with notices. The Courts imposed fines amounting to £27 0s. 0d. with £4 5s. 0d. costs.

AIR POLLUTION

The most important step in the fight for clean air in Northern Ireland is without doubt the passing of the Clean Air Act (Northern Ireland) 1964. While the Act received Royal Assent on 9th June, 1964, the date for its coming into operation (or appointed day) had not been announced at the time of writing.

The Act follows closely the English Act of 1956 and in some respect goes further. Two new clauses of interest have been included, the most important one giving the Minister power to make regulations to control the emission of gases (e.g., sulphur dioxide) from a chimney when he is satisfied that practical means exist for doing so. The other new clause requires a local authority to report to the Ministry of Home Affairs cases where an authorised officer suspects that a motor vehicle is so used as not to comply with regulations made under that section of the Road Traffic Act (N.I.) 1955 which concerns smoke and other emissions; and that Ministry is required to cause the matter to be investigated.

The greatest change affecting the general public will be that part of the Act enabling local authorities to establish smoke control areas. The introduction of such areas will require careful consideration, and much education of the general public is needed to create a *desire* for clean air. A considerable number of enquiries have been made to the Health Department by the general public as to when a smoke control area is likely to be established in their particular locality, their interest being the type of fuel burning appliance required and the amount of the grant available for conversion. This desire for clean air is at present confined to a small section of the community, but with the coming into operation of the Act and the publicity which will be given to it through the press, television, etc., it is hoped that, when smoke control areas are created, little public opposition will be met.

Rapid technological changes in the gas industry have considerably altered the coke supply position. In recent years the quantity of gas produced from coal in the United Kingdom has been greatly reduced and an increasing proportion is now being made from oil or oil gases. Also, liquid natural gas from North Africa is being imported into England in special ships. At the present time one-third to one-half of the gas supply in Belfast is obtained from the petroleum gas plant at Sydenham and within four years all gas for the City will be obtained from this source. This means that the present supply of approximately 45,000 tons of coke per annum will no longer be available. Supplies of solid smokeless fuel will have to be imported which, with gas, electricity and oil, will be the fuels approved for smoke control areas.

One of the present shortcomings of the clean air legislation is the limited power to deal with sulphur emissions, particularly as sulphur dioxide is one of the most widespread pollutants of the atmosphere. In the atmosphere it is absorbed by moisture to form sulphuric acid and a small proportion may be oxidised to sulphur trioxide. Because of the irritant nature of the gas and the corrosive nature of the acid it is highly desirable to remove it or reduce it to a minimum. It is, however, a very difficult technical problem to secure its reduction and, whilst smoke, grit and dust can be prevented, all or most of the sulphur in the fuel is burned (whether combustion is good or bad) and it then issues as a gas. The English Ministry of Housing and Local Government and the Scottish Development Department, realising that something must be done to reduce sulphur pollution, tackled the problem from the aspect of chimney height and a Committee was set up to investigate and make recommendations. The outcome was the publication of the "Memorandum on Chimney Heights" which is now widely used by local authorities as a means of securing some uniformity in arriving at the desirable height of chimneys when plans for new buildings are submitted. This Memorandum does not look at a chimney from the aspect of smoke dispersal, but rather as a medium by which sulphur gases may be taken into the higher atmosphere so that sufficient dilution will have taken place before the gases reach ground level. During 1964, 38 plans involving major fuel burning plant were submitted to the Health Department and in dealing with each of these the chimney height was estimated by reference to the above Memorandum. Architects and consulting engineers have recognised the need for some degree of uniformity in methods of estimating the height of chimneys and, whilst some suggest that a tall chimney may be architecturally out of place, all agree that the prime consideration is the dispersal of harmful gases.

During the week 23rd-27th November a Clean Air Exhibition was held in the Wellington Hall by the Northern Ireland Division of the National Society for Clean Air. Wide publicity was given to this Exhibition and it attracted large crowds of people from all walks of life. A large number of exhibits were on view, ranging from the various types of smokeless fuels available to domestic heating appliances and the effects of atmospheric pollution on health, materials and plant life. In conjunction

with this Exhibition a one-day Conference was held in the City Hall, the Conference being opened by the Minister of Health and Social Services, the Rt. Hon. Mr. W. J. Morgan, J.P., M.P. The Chairman was Dr. A. Parker, President of the National Society for Clean Air. Over 200 delegates attended and papers were presented by persons engaged in the various fuel industries and in the field of public health.

Measurements of solid material, sulphur dioxide and smoke continue to be made by instruments operated by the Health Department. These measurements are required because it is desirable to have as accurate a record as possible of the amount of pollution in the air where people live and work, in order to judge the success of whatever action may have to be taken in any particular locality, also to assist in considering plans for development and in establishing smoke control areas in relation to the existing level of air pollution. These records are of interest to local and central government and form a suitable subject for co-operative investigation. It is also necessary to have a picture of the pattern of air pollution for medical investigation into the connection between air pollutants and disease. At present five standard deposit gauges, four lead peroxide instruments and ten daily volumetric filters for smoke and sulphur are maintained by the Health Department, and comparisons can be made with the recordings made when instruments were first set up in 1954. Readings from deposit gauges and lead peroxide instruments in 1964 show a decrease in pollution on the previous year. The average monthly returns from daily recording instruments vary from month to month from previous years but overall remain much the same. The figure of 2,080 microgrammes of smoke per cubic meter recorded in the City centre on Tuesday, 10th November, was one of the highest readings ever taken in the City. On that day public and private transport was brought to a standstill by heavy fog and doctors reported an unusually high incidence of respiratory complaints.

The following table shows the work done in connection with Air pollution during 1964:—

Timed observations ..	..	..	..	..	1,837
Minutes of black smoke observed ..	..	..	..	..	1,179
Average minutes black smoke per observation ..	..	..	..	..	0.6
Statutory notices served ..	..	..	..	..	17
Verbal notices given ..	..	..	..	..	99
Plant inspections and advisory visits ..	..	..	..	..	2,430
Complaints investigated ..	..	..	..	..	80
Number of factory chimneys ..	..	..	..	..	400

Location of Atmospheric Pollution Recording Sites

(a) Health Department

- | | |
|------------------------|-------------------------|
| 1. Ormeau Avenue | 10. North Road |
| 2. York Road | 11. Balmoral Avenue |
| 3. Station Street | 12. Falls Road |
| 4. Forfar Street No. 1 | 13. Mountcollyer Street |
| 5. Forfar Street No. 2 | 14. Lowwood Park |
| 6. Northern Road | 15. Queen's Bridge |
| 7. Grove | 16. Dufferin Road |
| 8. College Street | 17. Forfar Street |
| 9. Templemore Avenue | |

(b) Queen's University Belfast

18. Royal Victoria Hospital

(c) Belfast Corporation Electricity Department

- | | |
|--------------------------|---------------------------------|
| 19. Sydenham Airport | 24. Madrid Street |
| 20. Duncrue Street | 25. East Bridge Street |
| 21. Great Patrick Street | 26. Victoria Works Queen's Road |
| 22. Skegoneill Street | 27. Thompson Dock Queen's Road |
| 23. Park Avenue | 28. East Twin Lighthouse |

Solid matter deposited (tons per square mile) at collection stations during 1964

TABLE B 5

Month	Station					Totals	Monthly Averages
	1	2	3	4	5		
January	20.03	28.28	19.57	29.56	21.45	118.89	23.78
February	36.82	22.48	22.29	13.99	27.08	122.66	24.53
March	63.68	33.48	29.50	27.82	35.54	190.02	38.00
April	27.94	22.81	20.60	14.63	30.47	116.45	23.29
May	25.57	20.14	20.13	19.26	26.07	111.17	22.23
June	23.20	15.77	14.13	13.39	24.03	90.52	18.10
July	16.52	15.61	14.90	11.04	24.80	82.87	16.57
August	27.26	21.51	21.48	16.31	40.14	126.70	25.34
September	21.82	29.92	22.45	15.04	33.03	122.26	24.45
October	23.74	25.51	19.67	21.01	17.62	107.55	21.51
November	23.51	28.78	21.04	16.75	30.40	120.48	24.09
December	18.68	23.21	17.05	19.06	21.75	99.75	19.95
Totals	328.77	287.50	242.81	217.86	332.38		
Averages	27.40	23.96	20.13	18.15	27.70		

Sulphur determination by lead-peroxide method (SO_3 per 100 sq. centimetres)
(Stations maintained by Health Department)

TABLE B 6

Month	Station				Totals	Monthly Averages
	4	5	6	7		
January	2.0	2.2	4.2	2.5	10.9	2.7
February	2.0	2.5	4.6	2.6	11.7	2.9
March	3.0	2.4	3.4	2.9	11.7	2.9
April	1.4	1.4	2.0	1.4	6.2	1.5
May	1.0	1.0	2.9	1.1	6.0	1.5
June	1.0	0.6	2.0	0.7	4.3	1.1
July	0.5	0.7	1.7	0.6	3.5	0.9
August	1.0	0.7	1.7	0.7	4.1	1.0
September	0.9	1.0	2.3	1.3	5.5	1.4
October	2.0	1.5	2.5	2.0	8.0	2.0
November	2.0	1.8	2.4	2.3	8.5	2.1
December	2.5	1.8	2.5	2.6	9.4	2.3
Totals	19.3	17.6	32.2	20.7		
Averages	1.6	1.5	2.7	1.7		

(Stations maintained by Belfast Corporation Electricity Department)

TABLE B 7

Month	Station										Totals	Monthly averages
	19	20	21	22	23	24	25	26	27	28		
January	4.42	2.90	2.51	2.36	1.71	2.34	1.66	1.95	3.21	2.52	25.58	2.55
February	3.79	4.21	2.54	2.71	1.71	2.27	1.40	1.93	3.62	1.76	25.94	2.59
March	2.75	5.15	2.32	2.92	1.85	2.15	1.36	1.37	2.18	1.13	23.18	2.31
April	3.70	1.59	1.70	1.29	1.10	1.89	1.30	1.45	1.90	1.92	17.84	1.78
May	2.39	1.68	1.38	1.02	0.69	1.29	1.07	1.08	1.87	1.87	14.34	1.43
June	2.45	0.97	0.91	0.64	0.70	0.97	0.70	0.74	1.51	1.18	10.77	1.07
July	3.12	0.59	0.69	0.53	0.37	0.84	0.57	0.55	1.91	1.53	10.70	1.07
August	1.74	1.33	1.16	0.85	0.71	0.96	0.82	0.93	1.15	1.15	10.80	1.08
Sept.	4.21	1.49	1.41	1.05	0.79	1.24	0.93	1.03	1.51	2.30	15.96	1.59
October	4.08	1.96	2.28	1.78	1.47	2.21	1.33	1.63	2.92	2.28	21.94	2.19
Nov.	6.35	1.89	2.51	2.13	1.80	2.79	2.22	2.13	3.02	4.36	29.20	2.92
Dec.	5.50	2.30	2.93	2.09	1.94	2.89	1.90	2.34	3.76	3.01	28.66	2.86
Totals	44.50	26.06	22.34	19.37	14.84	21.84	15.26	17.03	28.56	25.01		
Averages	3.33	2.17	1.86	1.61	1.23	1.82	1.27	1.42	2.38	2.08		

Rainfall at five deposit gauge stations for 1964

TABLE B 8

Station	Rainfall in inches											
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1.65	1.10	4.53	1.77	2.32	2.36	1.22	3.82	3.51	4.18	2.77	4.30
2	1.69	0.91	3.98	1.89	2.05	2.29	1.18	3.39	3.66	3.82	2.44	4.14
3	1.61	1.10	4.45	1.85	2.32	2.29	1.14	3.43	3.55	3.78	2.32	4.14
4	1.85	0.75	4.37	2.13	2.32	2.29	1.46	3.62	3.47	4.37	2.99	4.93
5	1.81	0.87	4.49	2.09	2.29	2.32	1.42	2.68	3.74	4.45	2.99	4.61
Monthly averages	1.72	0.95	4.36	1.95	2.26	2.31	1.28	3.39	3.59	4.12	2.70	4.42

Daily volumetric instrument (Station 18) maintained by Queen's University, Belfast

(Concentration in microgrammes per cubic metre)

TABLE B 9

Month	Smoke		SO ₂	
	M.A.	H.D.R.	M.A.	H.D.R.
January	242	924	119	250
February	226	444	136	223
March	255	560	168	269
April	120	444	104	226
May	49	139	96	213
June	41	111	75	130
July	24	82	59	142
August	63	157	36	102
September	66	170	76	109
October	163	484	92	248
November	289	1,044	172	569
December	242	576	158	264

Results of Daily Volumetric Instruments maintained by the Health Department
(Concentration of Smoke and Sulphur Dioxide in microgrammes per cubic metre)

TABLE B 10

Month	STATIONS																																							
	8				9				10				11		12		13		14		15		16																	
	Smoke		SO ₂		Smoke		SO ₂		Smoke		SO ₂		Smoke		SO ₂		Smoke		SO ₂		Smoke		SO ₂																	
ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr	ma	hdr															
January	232	1140	217	629	332	1196	153	561	168	596	96	306	132	492	86	232	196	860	83	233	320	1056	277	724	205	1044	128	601	238	788	172	473	208	840	141	288	327	1040	209	588
February	225	484	216	400	304	600	149	324	138	304	81	142	115	256	71	181	143	308	70	132	286	504	194	334	172	428	138	226	225	516	153	266	189	436	137	272	315	480	216	437
March	149	560	232	465	255	544	145	283	96	344	77	156	116	268	93	205	111	264	67	138	203	480	181	347	108	334	114	316	192	408	140	226	113	444	118	234	261	540	193	327
April	92	169	121	203	99	189	92	226	54	88	57	103	44	93	47	140	63	122	66	160	111	209	115	181	65	144	71	136	102	189	100	174	86	138	81	126	121	217	115	173
May	67	108	98	184	75	105	77	102	33	70	39	69	41	92	61	215	53	87	53	110	84	147	98	178	51	116	69	133	72	120	77	129	63	122	78	155	89	142	104	157
June	54	103	76	127	69	137	67	115	29	55	38	54	31	81	34	89	43	84	40	90	56	119	67	106	36	84	55	131	61	114	52	94	49	119	57	116	79	152	73	110
July	41	107	52	121	48	81	42	78	25	46	28	54	27	48	20	87	39	46	24	84	49	75	41	84	32	61	26	54	61	104	37	92	49	84	47	96	58	94	93	
August	78	197	63	174	79	179	61	129	41	101	33	71	52	192	33	96	56	125	38	90	68	154	58	92	42	93	40	79	80	154	50	108	72	149	50	115	84	197	64	121
September	111	269	79	148	106	195	76	200	61	118	49	89	53	140	40	83	80	176	48	105	118	228	88	137	70	160	66	127	94	194	63	105	93	178	65	110	105	246	79	136
October	282	608	198	706	292	768	146	341	158	444	84	292	147	576	67	195	183	386	73	147	314	664	151	349	167	496	118	268	235	800	121	334	215	744	117	316	335	996	152	329
November	321	2080	215	1107	449	1868	234	1038	226	812	130	446	196	864	98	398	265	1172	102	434	373	1420	216	986	236	1120	128	612	346	1428	186	744	282	1196	159	808	347	1408	192	675
December	282	1472	176	362	354	776	138	375	196	336	105	178	177	680	83	233	208	500	80	189	365	772	170	299	187	444	100	196	245	452	131	195	217	400	127	187	335	744	141	291

ma—Monthly average. hdr—Highest daily reading.

Heaviest Pollution—

Smoke—College Street, 10th November, 2,080 Mg. per cubic metre.

SO₂—Templemore Avenue, 16th November, 1,038 Mg. per cubic metre.

Lightest Pollution—

Smoke—Balmoral Avenue, 5th June, 7 Mg. per cubic metre.

SO₂—Lowwood Park, 7th June, 8 Mg. per cubic metre.

PORT SANITARY

Early in the year a consignment of 200 tons of meat, worth more than £65,000 (the fifth and largest of similar shipments to leave Northern Ireland) was loaded into the S.S. Carrigan Head for shipment to Norfolk, Va. The meat, in the form of cuts, was packed in strong cardboard cartons, conveyed by road on wooden pallets in special containers and stowed in the ship's refrigerated holds. The American consignees reported that the consignments were highly satisfactory, reflecting favourably on the hygienic methods used in packing, handling and stowing the meat. A second meat factory is being constructed to handle further orders for foreign markets. A weekly service commenced in March for the shipment direct to Rotterdam of fresh carcase meat, in vessels specially equipped for such trade. The meat, wrapped in mutton-cloth, is hung in metal containers during road transport and loaded from platforms with special handling gear. All dock personnel concerned in the loading and stowage of meat wear clean white protective clothing and caps. Continuous supervision of handling is maintained by the Ministry of Agriculture Portal Inspection Staff and, on arrival of the vessel, the cargo spaces are inspected by the Port Public Health Officers.

On 6th July, 1964 the Public Health (Ships) Regulations (Northern Ireland) 1954 were amended by the Public Health (Ships) (Amendment) Regulations (Northern Ireland) 1964. The amendments are:—

1. Extension of European territories containing excepted ports to include the coasts of Italy, Greece and the Federal Republic of Germany (formerly the area extended from Brest to the River Elbe).
2. The existing exemption from the provisions of the Public Health Ships Regulations accorded to ships and personnel of Her Majesty's Forces has been extended to include the armed forces of any country within the Commonwealth, the armed forces of any other country for the time being designated for the purposes of all the provisions of the Visiting Forces Act 1952 and the officers and crew of any such ship.
3. The completion of a Maritime Declaration of Health by a Master of a vessel arriving from an excepted port is not now required unless he receives notification from the Port Medical Officer that this is required.
4. The exemption from surveillance of persons disembarking from infected areas, formerly applicable only to those from areas infected with yellow-fever, has been extended to those from plague infected areas. Suspected persons from either of these areas are now only subjected to surveillance at the discretion of the Port Medical Officer.

During February the M.V. Towa arrived from South Africa. Included in the cargo for discharge at Belfast was a consignment of canned fruit which had suffered fire and water damage during the voyage. Examination was tedious, as normal discharge into separate well-spaced stacks was not possible due to the disintegration of the cartons from scorching and water. Instead, a conglomerate mound of cans was created in the shed, practically surrounded by other bagged cargo. However, 100% inspection of what represented 3,000 cartons was made and 18,000 scorched, rusted, and distorted cans, after being stacked by brand and weight, were surrendered and then destroyed under the supervision of the Port Public Health Inspectors. A jar of prawns taken as a sample for bacteriological examination showed the presence of coliform organisms. Further samples produced negative results. From amongst a large consignment of Australian canned meat products, one of the samples taken for chemical analysis was considered by the City Analyst to be inferior, as the meat content was 70% instead of 75% as recommended by the Food Standards Committee. Representations were made to the importers concerned. As in previous years, the necessity for condemnation of most of the foodstuffs destroyed arose from damage in transit or mishap during discharge. Where cargo has been subjected to wetting or immersion, the likelihood of contamination by river or dock water, ship's soil drainage system, or contained chemicals in solution (possibly from other cargo) is a factor considered in deciding whether or not to condemn the affected food.

Increased timber imports create additional sites of likely rodent harbourage, according to method of stacking and the length of time stacks remain undisturbed. Over a considerable area in the vicinity of Dufferin Road, Pollock Dock, rear of Sinclair Wharf and adjoining Stormont Wharf, particularly where timber had been stacked for some time, rodent infestation and breeding became evident. The Importers concerned were required to lay poison baits throughout the stacks and from this quite a good kill was obtained. In a number of offices, stores and huts in the timber storage area, the necessity for rat-proofing to prevent access to under floor spaces was evident. Satisfactory results were obtained by the use of expanded mesh metal panels and concrete, fitted to our instructions. Harbourage in the form of straw, wood-wool and other forms of packing, paper, cardboard, veneer, etc., tends to accumulate in areas used for the handling and storage of containers. These areas were regularly in-

spected and in every case the accumulations were removed at the request of the Port Public Health Inspectors. Similar harbourage (but to a lesser extent) tends to accumulate in sheds used for the reception of general cargo where the storage of heavy and bulky cargo gear, not in constant use, creates suitable harbourage for mice, which arrive in cargo, such as straw packed crates of sheet glass, often with a considerable "resident" population. Where such conditions existed early removal of harbourage and turning over of cargo gear was required.

During the export season for seed and ware potatoes, harbourage in sheds is increased by the use of large quantities of straw used to prevent frost damage. Over a period of at least three months, frequent observation is necessary, particularly at shed doors, where the straw (which remains packed and left undisturbed for quite a time) creates ideal breeding grounds. In vessels where rodent infestation was evident and in which cargo for discharge elsewhere was retained on board, interim eradication measures by trapping and baiting were taken and the cross-channel Port Health Authorities concerned were notified of the extent and location of infestation and local treatment effected. Discharged cargoes were thoroughly examined in the sheds and where necessary poison baiting was carried out.

The number of locally based coal-burning coastal vessels, with forecastle accommodation for crew, oil lamps for illumination while vessel is in port and primitive sanitary, washing, cooking and heating facilities, has now been reduced to three. The amenities in the way of improved accommodation, food storage and cooking, provision of baths and showers, better natural and artificial lighting, radiator heating, drying rooms, bright and colourful plastic covering of bulk and deck heads, now found in the modern coastal vessels, has helped to inculcate in crews a new respect for cleanliness and tidiness which was not encouraged by the cramped and sordid living conditions found in the coastal vessel of some years ago. The use of metal and plastics in the construction of the accommodation as an alternative to wood, particularly in galleys and storerooms, has helped to greatly reduce insect infestation.

In June, during the outbreak of Typhoid Fever in Scotland, watch was kept at the Port for cans of Argentinian, Brazilian, Paraguayan and Uruguayan corned beef of a particular brand either landed or in ships stores. Those found were directed to be returned by the holders direct to the suppliers.

In early February the first arrival at the new B.P. oil refinery at Sydenham was the tanker "British Engineer" (a locally built ship) carrying almost 30,000 tons of crude oil from the Middle East. The 240' long jetty head is of concrete deck carried on steel and concrete piling and is linked to the shore by a 1,121' long causeway. The jetty is equipped for unloading the largest tankers and the loading of sea-going tankers, facilities being included for bunkering. The oil refinery, situated in a 100 acre site adjoining Airport Road West, was officially opened on 7th May. Sixty-five acres of reclaimed land contain the installation in its present state, the remainder being earmarked for future extension. The need for a refinery was envisaged at least twenty years ago and the increasing demand for petroleum products in Northern Ireland over the past ten years has brought about its construction. Following the reception of crude oil in February, the plant was producing finished products for the first time in early April, including propane, butane, motor spirit, aviation turbine kerosene, regular grade kerosene, gas oil, industrial fuel oils and sulphur. The refinery has three 170' chimneys and a 170' flare stack. A sulphur removal and recovery plant reduces extent of atmospheric pollution by the refinery gases. To avoid the discharge of oil into Belfast Lough, a modern separator has been included in the refinery drainage system. The first outward cargo, one of 600 tons of medium fuel manufactured at the refinery, was carried by a coastal tanker for discharge at Londonderry in mid-April and since then constant inward and outward sailings have been maintained.

In order to extend port supervision, particularly of landed foodstuff cargoes, over as long a period as possible during the working day, one Port Public Health Inspector, by rota, commences duty at the Port at 8.40 a.m. and inspection continues until 4.30 p.m. or later if necessary. The distances to be travelled by the Port Public Health Inspectors, due to the situation of the latest Port installations and wharves, further seawards on both sides of Belfast Lough, together with the boarding of vessels at Carrickfergus and Bangor harbours, has made the provision of transport (at least on a part-time basis) necessary.

The grain silo of 25,000 tons capacity situated at the northern extremity of the West Twin has been completed and in operation since August. Arrival of large ocean-going grain carrying vessels has been constant at the adjoining wharf, the completion of which has created a continuous deep water wharf of 2,700' in length on the West side of the Victoria Channel. Improved sea passenger terminal facilities at the cross-channel berths, Donegall Quay, are envisaged and expected to be completed coincidental with the opening of the new Lagan Bridge and re-berthing of the steamers. It is intended to provide direct access to passenger waiting accommodation from vessels, modern luggage handling methods and a tourist information centre.

The modernisation of the Musgrave Yard of Harland & Wolff, Ltd., has been completed and, by the merging of two slipways into one large building berth capable of taking vessels of over 100,000 tons deadweight, the number of building berths has been reduced from six to five. The expected provision of a large graving dock will attract the return, for refit, of the large vessels recently built here. As a point of interest, mention is made of a recently completed dry-dock in Scotland, incorporating a sewage system which enables the ship's washing and toilet accommodation to continue in use during dry-docking. By means of patent expanding chucks inserted into the discharges in the ship's hull, the ship's sanitary drainage system can be connected to the town sewers. This overcomes the inconvenience to workers and crew, who would otherwise have to use dock-side toilets at some distance from the dry-dock. New tonnage built at Queen's Island this year was less than in 1963. Four vessels were launched and mid-ship sections built into two others. Amongst the vessels launched was the tanker Texaco Maracaibo, of 51,774 gross tons, 854 $\frac{1}{2}$ ' long and 125' beam, which was completed and went on trials at the end of December. Included in the vessels refitted were the P.S.N. liner "Reina Del Mar" at a cost of nearly one million pounds, converting her from a three-class passenger-cargo liner to a two-class cruise ship: the Shaw Savill "Southern Cross": the Furness Withy "Ocean Monarch" and the Port Line "Port Alfred." All vessels building, completing or refitting were frequently inspected by the Port Public Health Inspectors and Pests Officer for rodent or insect infestations. On completion of construction or refit a comprehensive inspection is made before issue of a Deratting Exemption Certificate.

Regular contact is maintained with the Waterguard Officers and the Landing and Shipping Branches of H.M. Customs and Excise, the Immigration Office, the Marine Survey branch of the Ministry of Transport and Civil Aviation, the Belfast Harbour Commissioners, the Ship's Water Office of the Water Commissioners, the Portal Inspection Branch of the Ministry of Agriculture, also the Harbour Masters of Bangor and Carrickfergus, all of whom have been most helpful and co-operative.

Ships launched by Harland and Wolff Ltd., during 1964:—

"Hazelbank"	Single screw cargo	10,507 gross tons
"Irishbank"	Single screw cargo	10,526 gross tons
"Texaco Maracaibo"	Single screw tanker	51,774 gross tons
"British Vine"	Single screw tanker	12,700 gross tons
"Ballylesson"	(New Midship Section)	160 gross tons
"Niceto de Larrinaga"	(New Midship Section)	1,000 gross tons
Small Craft		994 gross tons

Machinery Delivered:—

Naval	33,000	Indicated horse power
Naval	33,000	Indicated horse power
"British Beech"	10,000	Indicated horse power
"British Willow"	10,000	Indicated horse power
Newfoundland	7,350	Indicated horse power
Nova Scotia	7,350	Indicated horse power

Among the vessels which underwent refit were:—

Liners	"Reina Del Mar", "Southern Cross", "Ocean Monarch".
Cargo Vessels	"Port Alfred", "Port Ferry", "Warpowa", "Waiwera", "King City", "Leeds City", "Craigfellen", "Pampas", "Salamanco", "Niceto de Larrinaga", "Ballylesson", "Colebrook", "Darro", also the larger vessels of the Head Line.
Tankers	"Eskfield", "Methane Princess", "Marianna III", "George Peacock".
Cross Channel Cargo/ Passenger Vessels	"Ulster Monarch", "Ulster Prince", "Royal Ulsterman", "Royal Scotsman", "Irish Coast", "Scottish Coast", "Leinster", "Munster", "Hibernia".

Constitution of Port Sanitary Authority:—

The expenses of the Port Sanitary Authority are contributed by Urban and Rural Sanitary Authorities in the following proportions:—

Corporation of Belfast	..	..	..	..	92 per cent
Carrickfergus Urban District Council	..	..	..	..	1 per cent
Holywood Urban District Council	..	..	..	..	1 per cent
Bangor Borough Council	..	..	..	..	1 per cent
Newtownabbey Urban District Council	..	..	..	..	1½ per cent
Castlereagh Rural District Council	..	..	..	..	1½ per cent
Larne Rural District Council	..	..	..	..	1 per cent
North Down Rural District Council	..	..	..	..	1 per cent

Amount of shipping entering the port during the year 1964:—

TABLE B 11

From	Number	Tonnage	Number inspected		Number recorded as defective	Ships on which defects have been remedied	Ships reported as having had infectious disease on board during the voyage
			By Medical Officer	By Port Public Health Inspector			
FOREIGN: Steamers } Motors }	1,163	5,011,656	67	1,159	131	127	8
COASTWISE: Steamers } Motors }	6,570	2,084,425	10	1,391	84	81	7
Total	7,733	7,096,081	77	2,550	215	208	15

Included in above table are arrivals at Bangor and Carrickfergus.

Character of trade of port:—

(a) *Passenger traffic (other than coastwise) during the year:—*

TABLE B 12

Passengers	Aliens		British		Total		Refused leave to land
	Forces	Civilian	Forces	Civilian	Forces	Civilian	
Inwards by ship	—	396	—	368	—	764	11
Inwards by aircraft	3	374	755	2,758	758	3,132	—
Total	3	770	755	3,126	758	3,896	11
Outwards by ship	7	212	—	183	7	395	Refused leave to embark
Outwards by aircraft	1	396	845	2,965	846	3,361	—
Total	8	608	845	3,148	853	3,756	—

(b) *Cargo Traffic:—*

Principal Imports:—Maize, wheat, barley, oats, flour, butter, fresh dried and canned fruits, meat and meat products, tea, sugar, fish, vegetables, eggs (frozen and powder), desiccated coconut, wines, ales, cordials, carobs, grain, offals, cattle, pig and poultry fodder, hides (cured), timber, wood-pulp, paper, flax, hemp, coir, sisal, rayon fibre, chemicals, fertilizers, oil, coke, coal, duralium, tin-plate, steel, brass, copper, machinery, cement, building materials, vehicles, tar, asphalt, tobacco, (leaf and manufactured) cigarettes

Principal Exports:—Eggs, bacon, pork, poultry, fresh fish, shellfish, potatoes, apples, whiskey, live cattle, sheep and pigs, hides, (wet) grass-seed, machinery, ropes, twine, thread, linen, tobacco, cigarettes, steel and iron scrap.

(c) Foreign ports from which ships arrived:—

TABLE B 13

Aarhus	1	Constanza	1	La Pallice	15	Puerto Cortin	1
Abidjan	5	Copenhagen	8	La Sabina	1	Quebec	3
Abo	4	Cristinsund	1	La Salinas	2	Randers	1
Adelaide	3	Cristobal	1	Las Palmas	2	Rauma	3
Agadir	1	Curacao	2	Legout	1	Reykjavik	2
Algiers	4	Dakar	8	Le Leque	1	Rangoon	5
Almeria	1	Dalhousie	6	Le Treport	3	Riga	4
Alicante	1	Dahouet	3	Le Havre	1	Risdon	1
Alexandria	1	Dar-es-Salaam	3	Limasol	3	Rochefort	1
Allepey	1	Delfzijl	3	Lourenco Marques	5	Rotterdam	127
Albany	2	Detroit	1	Los Angeles	1	Rosario	1
Amsterdam	13	Djibouti	2	L'orient	13	Rouen	76
Annapolis Royal	2	Douranez	1	Luderitz	1	San Antonio	1
Antwerp	60	Dunclair	1	Lysolund	1	Saint Johns, N.F.	1
Archangel	7	Dunkirk	25	Malaga	3	San Juan	1
Aruba	1	Durban	10	Malta	1	San Sebastian	27
Arica	1	Egsund	1	Mantyluoto	6	Santa Fe	1
Baltimore	2	Elvalandet	1	Maraus	1	Santander	1
Bandar Mashur	13	Elsfetg	1	Marans	3	Savannah	2
Baie Commeau	1	Eskifjordur	2	Matarina	1	Sapele	1
Barbados	1	Esbjerg	3	Messina	3	Seydisfjord	1
Bassien	1	Etel	1	Merikarvia	1	Siglufjordur	1
Barcelona	7	Famagusta	11	Mina-al-Ahmadi	8	Sheet Harbour	2
Bathurst	3	Flushing	4	Milwaukee	1	Skikda	1
Baton Rouge	1	Frederiksund	7	Miramichi	2	Skagen	1
Bayonne	16	Freetown	2	Milos	1	Sonderburg	1
Baybulls	3	Fremantle	11	Middleburgh	1	South Nelson	1
Beira	12	Genoa	1	Middlefart	2	Stavanger	1
Bergen	4	Ghent	43	Montreal	18	Stettin	1
Bedi Bunder	5	Gronigen	13	Mombasa	5	Stenshaven	1
Bombay	6	Gruvon	1	Monte Video	1	Stocka	2
Borkenes	1	Gothenberg	7	Mormugoa	1	St. John, N.B.	10
Bordeaux	4	Guayaquil	1	Namsos	1	Svolvaer	1
Boston (Mass.)	3	Gydnia	1	Naples	1	Sydney	4
Burin	1	Halifax, N.S.	2	New Westminster	2	Takoradi	3
Bone	1	Halmstad	1	Newport News	3	Tangier	1
Brisbane	4	Hamburg	3	Newcastle, N.S.W.	1	Terneuzen	3
Bridgewater, N.S.	3	Halsa	2	New York	1	Three Rivers	13
Bremen	23	Harbour Grace	1	Norfolk, Va.	7	Trondhiem	1
Bremerhaven	1	Haugesund	2	Norrisundet	3	Toledo	3
Brussels	1	Haifa	2	Odda	1	Tonnay Charente	3
Breskens	1	Hallstavik	3	Oran	2	Tolkis	1
Buenos Aires	8	Hamina	5	Oslo	9	Toronto	2
Burea	1	Haukipudas	4	Paim Pol	2	Umea	1
Calais	6	Helsinki	4	Paita	2	Valencia	5
Calicut	1	Holbaek	1	Paphos	1	Vancouver	12
Carleton	1	Hornfleur	1	Patras	3	Vestman	1
Caen	3	Husavik	1	Pasletillo	2	Victoria, B.C.	1
Castinillia	1	Iskandarona	1	Parrsboro	1	Vizagapatam	2
Capetown	19	Itajai	1	Pasajes	7	Vosklot	1
Cartagena	7	Kakanada	2	Philadelphia	7	Walkom	1
Casablanca	2	Kamperland	1	Port of Spain	1	Wallaroo	1
Cambletown	1	Kappervik	1	Port Lincoln	2	Walvis Bay	10
Chatham, N.B.	1	Karachi	2	Port Sudan	2	Wemeldingen	2
Chicago	2	Kemi	1	Port Alfred	5	Westman Island	1
Chittagong	1	Klaipeda	4	Port Arthur	1	Weymouth, N.S.	1
Chimbote	1	Kotka	10	Port Elizabeth	2	Wilmington	4
Cochin	1	Kpeme	1	Port Churchill	1	Wismar	2
Colombo	1	Kuwait	1	Ponce	1	Wormerveer	7

The nationality of the ships which arrived at the port and were inspected was as follows:—

TABLE B 14

American	5	Finnish	6	Lebanese	1	Roumanian	1
Argentinian	1	German (East)	2	Liberian	13	Russian	16
Belgian	13	German (West)	144	Monegasque	1	Spanish	40
Brazilian	1	Ghanaian	1	Moroccan	1	Swedish	19
British	1,434	Greek	17	Nigerian	2	Swiss	1
Canadian	2	Icelandic	8	Norwegian	59	Union of South Africa	13
Danish	56	Indian	5	Pamanian	15	United Arab Republic	1
Dutch	603	Israeli	4	Polish	3	Yugoslavian	3
French	32	Italian	1	Republic of Ireland	29		

The Aliens Order 1953 (S.I. 1671/1953)

Under Articles 30 and 33 of the above Order, Dr. J. McA. Taggart, Dr. W. J. McLeod and Dr. A. L. Walby were appointed by the Ministry of Health and Local Government as Medical Inspectors for the Port of Belfast for the purposes of the Order.

Ships carrying aliens including those granted Temporary Shore Leave.	150 inwards; 62 outwards
Aircraft carrying Aliens	31 inwards; 24 outwards

Water Supply

(a) and (b) for the port and shipping:—

The Port water supply is obtained from the Belfast City and District Water Commissioners' mains, which feed the Belfast Harbour Commissioners mains and quayside hydrants. Vessels are supplied from hydrants by the use of meter/standpipes and hoses under the control of the B.W.C. personnel.

(c) Water Boats:—

There are no water boats at the Port.

Water Sampling

43 samples of drinking water were taken on board vessels and submitted to the Public Health Laboratory for bacteriological examination. 37 of these samples were found to be highly satisfactory and 6 samples unsatisfactory due to the presence of coliform organisms which in one case was of faecal origin. Where examination revealed contamination, the ship's water tanks, pumps and systems were thoroughly flushed and chlorinated with effective results in every case.

Public Health (Ships) Regulations (Northern Ireland) 1954-1964:—

Arrangements for dealing with declaration of health forms:—

Declaration of Health forms as recommended by the Association of Sea and Air Port Health Authorities of the British Isles are in use at the port. Special instructions relative to the Port of Belfast are given on the fourth page and a supply of these forms is distributed to H.M. Customs Officers and the Belfast Harbour Commissioners for the use of the Pilotage service.

A Declaration of Health form signed by the master and countersigned by the Ship's surgeon (where one is carried) is received from each ship arriving at the port from a foreign port. The Declaration of Health Form is received by the Customs Officer or the Port Public Health Inspector on the arrival of the ship. The answers to the questions contained in the Declaration are scrutinised and supplementary questions asked. In cases where the Customs Officer first boards the ship and Declaration of Health is satisfactory, pratique is granted. If the Declaration of Health is not satisfactory, the circumstances are immediately reported to the Port Medical Officer, who makes investigations before passengers or crew are allowed to land. Ships arriving at the port are required to display the appropriate quarantine signals as laid down in the regulations.

459 completed Declaration of Health Forms were received from vessels arriving at the Port from foreign ports other than "Excepted Ports."

Boarding of ships on arrival:—

All ships arriving from a foreign port are boarded on arrival by an officer of H.M. Customs and an officer of the Port Sanitary Authority.

Notification to the Authority of inward ships requiring special attention (Wireless messages, land signal stations, information from pilots, Customs Officers, etc.):—

Arrangements for the transmission of wireless messages from inward bound ships requiring special attention under the Regulations have been made with the various shipping companies and agents in Belfast. Under the arrangements the shipping companies receive the wireless message required under Regulation 13 and forward the information to the Port Medical Officer.

Alternatively, or in addition, wireless messages are received direct by the Port Sanitary Authority, the telegraphic address "Portelth, Belfast" having been registered for this purpose. (Regulation 14 (1) and (2)). No land signalling system is in operation.

Close co-operation exists between the Port Sanitary Authority and the Officers of H.M. Customs and notifications of ships requiring special attention are received from the latter.

Mooring stations designated under Regulations 22 to 30:—

With the concurrence of H.M. Customs and the Belfast Harbour Commissioners, the ordinary places of mooring, discharge or loading have been designated mooring stations in relation to inward ships from foreign ports.

Experience of working of Regulation 18: restriction on boarding or leaving ships:—

In carrying out the provisions of this Regulation during the year no difficulty arose and it was not necessary to require passengers to furnish names and destinations, etc., as there was no case of infectious disease on board any ship arriving at the port which required this procedure.

Arrangements made for:—

Regulation 5 (c) (i): Premises or waiting rooms for medical inspection:—

There are at present no premises set apart as a Customs examination hall, waiting rooms or rooms for medical inspection of passengers, as there are no direct passenger sailings between this port and foreign ports. Passengers who arrive by direct cargo ships from foreign ports are examined, if necessary, on board the particular ship.

Regulation 5 (c) (ii): Premises for temporary isolation of persons as required by the regulations:—

None provided.

Regulations 5 (c) (iii): Cleansing, disinfecting or disinfestation of ships, persons or clothing:—

After the removal of a case or cases of infectious disease, disinfection of the ships is carried out by the Port Public Health Inspectors. Clothing and other effects are removed to the Health Committee's Disinfecting Station, Laganbank Road, where they are subjected to steam pressure disinfection. The cleansing of persons is also carried out at this station at which suitable facilities have been provided for this purpose.

Regulation 5 (d): Arrangements for reception into hospital of persons as required by the regulations:—

The N.I. Hospitals Authority make provision for the reception of cases of infectious diseases at the Northern Ireland Fever Hospital at Purdysburn. Separate premises situated in the hospital grounds, but self contained and isolated from the other hospital buildings, are available for the reception of cases of smallpox.

Regulations 5 (e): Ambulance transport:— The port makes use of the facilities provided for ambulance transport in the City by the N.I. Hospitals Authority.

Regulations 5 (f): Supervision of contacts:— No notifications regarding contacts of infectious diseases were received from other Sea and Airport Health Authorities during the year.

*Cases of notifiable and other communicable diseases
landed from ships (including coastwise ships)*

TABLE B 15

Disease	Cases during 1964		Ships concerned	Average cases for previous five years
	Passengers	Crew		
Influenza	—	4	3	2
Tonsillitis	—	3	3	2
Tuberculosis	2	—	2	3
Mumps	2	—	2	1
Chickenpox	1	—	1	—
Measles	1	—	1	1

Cases of notifiable and other communicable diseases on ships but disposed of prior to arrival at the port

TABLE B 16

Disease	Cases during 1964		Ships concerned	Average cases for previous five years
	Passengers	Crew		
Dysentery	—	1	1	—
Measles	—	1	1	1
Typhoid	—	1	1	—

No cases of cholera, plague, relapsing fever, small-pox, typhus fever or yellow fever occurred, and no plague infected rats were discovered during the year.

Other illnesses which occurred in vessels during voyage or on arrival at the port

TABLE B 17

Illness	Foreign-going	Coastwise
Abscesses	4	—
Appendicitis	1	1
Asthma	—	1
Bronchitis	5	—
Boils	1	—
Cardiac Trouble	2	1
Cestode	1	—
Ear Discharge	1	3
Gastritis	6	2
Haemorrhoids	2	—
Hernia	2	2
Hepatitis	1	—
Injuries	16	6
Kidney Trouble	2	—
Migraine	1	—
Mental Illness	1	—
Rheumatic Trouble	7	1
Venereal Disease	13	2

Measures against rodents

Steps taken for detection of rodent plague:—

In ships in port:—All ships arriving from ports where plague is endemic are boarded by the Port Public Health Inspector as soon as possible after berthing. Enquiries are made as to the prevalence of rats on board, and as to whether any sick or dead rats were found during the voyage. The ships are then inspected to ascertain the degree of rat infestation, and are periodically inspected during the time they remain in port in order to ascertain if any dead rats have been found in the cargo.

Measures taken to prevent the passage of rats between ship and shore:—

All ships arriving from foreign ports are required to affix rat-guards to all moorings and maintain them so affixed during the time they are in port. It is also recommended that the gangway or other communication with the shore should be raised at least eighteen inches from the ground.

Methods of deratting in ships:—

(a) Eradication measures in a vessel are influenced by the extent and location of the infestation. Where such is slight and confined, trapping and warfarin baiting will suffice. In other cases fumigation with hydrogen cyanide is resorted to. The latter is carried out by authorized contractors and in accordance with the provisions of the Hydrogen Cyanide (Fumigation of Ships) Regulations (Northern Ireland) 1952 and under the supervision of the Port Public Health Inspectors.

(b) Premises in the vicinity of docks, quays, etc.—Sheds, wharves, roads and open spaces in the Belfast Harbour Commissioners' Estate receive routine warfarin baiting. Occupiers of premises within the Estate readily accede to requests for provision of rodent repressive treatment at their premises, where necessary. When necessary a written notice under the Rats and Mice (Destruction) Act, 1919 is served on the occupiers of the premises concerned.

Measures taken for detection of rats in ships and on shore:—

(a) In ships:—Vessels arriving in the port are inspected by the Port Public Health Inspectors and Pests Officer to ascertain the presence of rodent infestation, the extent of same or any condition which would inhibit infestation.

(b) On shore:—Sheds, stores, other buildings and structures also timber stacks and open spaces receive continual inspection.

Inspections made by Pests Officer :—

Vessels	1,215
Dockside premises, sheds, stores, timber-stacks, building and fitting-out berths also yards and lands	699

Rat proofing:—

(a) Extent to which docks, wharves, warehouses, etc., are ratproof:—

The quaysides of docks and basins in the port are mainly of solid granite construction with ferro-concrete or granite sett surfacing. In the case of jetties, wharves and quay extensions, some rat harbourage does exist in the under-jetty piling and frame work also in the stone facing of the river bank but the rat passage from one to the other is restricted by the sound construction of quayside surfacing. The use of concrete and/or granite setts laid on concrete in the construction of roads and shed floors ensures effective rat proofing in sheds and other dockside buildings.

(b) Action to extend ratproofing:—

(1) In ships:—Efforts are directed towards restricting free movement in vessels and preventing access to such attractive spaces as bilges for water, under ceilings, sheathing or casing for nesting and food stores. The use of tight fitting steel doors, sheet metal and expanded fine-mesh metal assures perfect protection.

(2) On Shore:—Dock-side premises receive inspection to ensure that they are maintained in sound condition against the entry and harbourage of rodents also that material favourable to harbourage and feeding is not permitted to accumulate. Most owners and occupiers of premises in the Port area are fully aware of the damage to merchandise caused by rodents and adopt all practicable measures to prevent their entry.

Number of rats destroyed during year

(1) On ships:—

TABLE B 18

Species	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black Brown	2	1	—	6	1	3	1	23	23	90	11	—	161

In addition to the above, 11 mice were destroyed.

(2) In docks, quays, wharves, warehouses etc.:—

TABLE B 19

Species	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black Brown	— 1	2 —	— —	3 —	10 —	5 —	3 —	2 —	4 —	3 2	1 3	2 2	8 35

In addition to the above, 43 mice were destroyed. The rats destroyed as recorded in above table were only those reported to the Port Public Health Inspectors and Pests Officer following enquiry from sweepers, storemen, pest eradicating operators, etc.

Measures of rat destruction on plague "infected" or "suspected" ships or ships from plague infected ports which arrived at the port during the year:—No plague infected or suspected ships arrived at the port during the year.

Deratting Certificates and Deratting Exemption Certificates issued during the year

TABLE B 20

Net tonnage	Ships	Deratting certificates issued					De-ratting exemption certificates issued	Total certificates issued		
		After fumigation with			Total					
		HCN	Sulphur	HCN and sulphur						
Up to 300 tons	27	—	—	—	—	—	27	27		
From 301 tons to 1,000 tons	37	—	—	—	—	—	37	37		
From 1,001 to 3,000 tons	16	1	—	—	—	1	15	16		
From 3,001 to 10,000 tons	33	—	—	—	—	—	33	33		
Over 10,000 tons	8	—	—	—	—	—	8	8		
Totals	121	1	—	—	—	1	120	121		

12 Vessels, where rodent infestation was slight, were serviced by trapping and baiting.

Hygiene of crews' spaces:

Classification of nuisances:—

TABLE B 21

Nationality of ships	Inspected during 1963	Defects of original construction	Structural defects through wear and tear	Dirt, vermin, and other conditions prejudicial to health
British	1,434	12	250	251
Other nationalities	1,116	4	32	81

The defects found consisted of:—

TABLE B 22

	British	Others
Defects due to wear and tear of the following:		
Baths	3	—
Bilge, limbers and suctions	3	2
Cargo pallets	2	—
Chopping blocks	3	—
Coffee, milk and tea boilers	7	—
Cupboards and tables	4	1
Decks	12	3
Deckheads	8	2
Doors	3	—
Drinking water filters	6	—
Drinking water tanks	1	—
Drainage system and sullage tanks	4	—
Flushing valves and pipes	13	3
Flue pipes	10	—
Galley stoves	23	4
Galley refuse shutes	4	—
Grease traps	5	1
Hot and cold water systems	14	1
Heating systems	7	—
Heating stoves	2	—
Hold, ceilings and casings	1	—
Lockers	8	2
Portlights and windows	20	3
Rat-proofing	2	—
Refrigerators, domestic and cargo	22	2
Scupper pipes	7	1
Shower fittings	6	—
Sinks	4	—
Soil discharges	5	1
Tiling	5	—
Urinal discharges and stalls	8	1
Ventilation systems	13	1
Ventilators	4	—
Waste discharges	11	3
Wash basins	7	—
W.C. joints	2	—
W.C. basins	6	1
W.C. seats	1	—
Other conditions:		
Bilges cleansed and painted	15	2
Crew's accommodation cleansed	19	7
Crew's accommodation painted	19	3
Disinfection after infectious disease	5	—
Drinking water tanks cleansed and cement-washed	26	2
Drinking water tanks and systems chlorinated	7	—
Drinking water vessels cleansed	4	—
Dockside nuisances	16	15
Domestic refrigerators painted	4	—
Lockers painted	10	2
Passenger accommodation cleansed	7	—
Passenger accommodation painted	12	—
Refuse on deck removed	8	4
Rodent harbourage removed	3	1
Serviced insects	34	25
Serviced rodents	5	5
Scuppers cleansed	16	5
Sullage tanks cleansed	10	—
Swill bins provided	4	—
Urinals cleansed	2	—
W.C. basins and compartments cleansed	12	5
W.C. compartments painted	13	5
Totals	517	113

Action taken following discovery of nuisances or other defects in vessels:—

Where the nuisance or defect has arisen from normal wear and tear, etc., verbal notice is given to the Master, if available, or to him through the Chief Officer, Chief Engineer, Chief Steward or Duty Officer, according to which Department in the vessel is concerned. Where the vessel is undergoing refit, Master, Marine Superintendent, or Shipyard Manager is contacted, and where the Owners' sanction is required, the Shipping Agent. Where the nuisance or other condition arises from defect in original construction of the vessel, the Port Public Health Inspectors notify the Marine Survey Officer of H.M. Ministry of Transport and Civil Aviation. Similar notification is made where, in the course of inspection of provision stores, ships' provisions are found to be adversely affected either from surroundings or condition, or in cases where drinking water storage tanks are so positioned as to be subject to heat.

Food Inspection

Action taken under the Public Health (Imported Food) Regulations (Northern Ireland) 1937–1948, the Preservatives in Food Regulations (Northern Ireland) 1962, the Milk (Preservatives) Regulations (Northern Ireland) 1962 and the Flour (Composition) Regulations (Northern Ireland) 1961:—

The following samples were procured and submitted

- (a) to the Central Laboratory of the Northern Ireland Hospitals Authority for bacteriological examination:—

Canned prawns 1; chopped ham 1; Danish shrimps 1; desiccated coconut 30; luncheon meat loaf 1; minced beef loaf 1; mussels 1; pickled shrimps 1; stuffed pork roll 1.

- (b) to the Public Analyst for chemical analysis:—

apples 12; boneless chicken 1; beef steak with gravy 1; cake mix 1; canned salmon 1; curried veal 1; groundnuts 7; Irish stew 1; lemons 6; luncheon meat loaf 1; mixed pickles 1; minced beef loaf 1; Norwegian sild 1; lentils 1; stoned dates 1; steak and vegetables 1; wheat flour 2.

During the year cargoes of food stuffs on board vessels and stored in dockside sheds and warehouses were inspected regularly for the detection of unsound food also to ensure that the requirements of the Public Health (Prevention of Contamination of Food) Regulations (N.I.) 1948, relative to handling and storage of foodstuffs, were being complied with.

Shellfish:—Information respecting any shellfish beds or layings within the area under the jurisdiction of the Port Sanitary Authority, stating whether they are, in the opinion of the Port Medical Officer, liable to pollution:— There are no layings of shellfish within the area.

Report of any action under the Public Health (Shellfish) (N.I.) Regulations 1936 or the Food and Drugs Act (N.I.) 1958:— None taken. Under the Belfast Corporation Act 1930, it is an offence to gather shellfish within the area under the jurisdiction of the Belfast Port Sanitary Authority. Posters are exhibited in the vicinity of the Port area, warning the public against the gathering of shellfish.

Unsound food seized or surrendered

TABLE B 23

	Tons	Cwt.	Qrs.	Lbs.
Assorted cakes	—	—	1	4
Apples	—	6	3	22
Baby food	—	—	—	6
Bread	—	—	3	19
Bread improver	—	7	—	—
Butter	—	11	2	4
Canned apricots in syrup	—	5	—	14
Canned grapefruit segments in syrup	4	18	3	9
Canned ham	—	—	—	11
Canned pears in syrup	—	6	—	8
Canned sliced peaches in syrup	—	—	—	15
Canned sliced peaches in water	—	4	2	16
Canned pineapple pieces in syrup	1	11	2	9
Canned salmon	—	—	—	8
Cocoa butter	—	5	1	5
Desiccated coconut	—	2	3	22
Fresh cherries	—	—	1	4
Fish crumbs	—	5	—	—
Glucose	—	1	—	8
Ham	—	—	—	14
Maize cornflower	—	2	—	—
Margarine	—	—	3	1
Orange juice concentrate	—	—	—	5
Onions	3	4	1	4
Pickled herrings	—	1	1	—
Preserved ginger shavings	—	2	—	—
Sultanas	1	3	2	8
Tea	—	—	2	16
Tomato juice	—	—	3	6
Wheat flour	—	1	—	16

Smoke observation of ships' funnels:—

Number of observations (each of 30 minutes' duration) made during the year	.. .. .. .. .. .. .. ..	97
Number observed discharging black smoke over two minutes in a continuous period of 30 minutes	.. .. .. .. .. .. .. ..	12
Number of statutory notices served (following observations taken by the Senior Smoke Inspector)	.. .. .. .. .. .. .. ..	Nil

Verbal notice was given by the Port Public Health Inspectors to Masters, Chief Engineers and Ships' Managers regarding the volume of dark smoke being emitted on 20 occasions and in every case immediate remedy was effected. Opportunity is taken, especially when inspecting vessels using steam in heating or propulsion, to contact Chief Engineers with a view to preventing emission of dark smoke from funnels while vessels are in Port.

Routine and other inspections, additional to those tabulated elsewhere in the Report:—

816 visits to cross-channel (passenger) vessels.

1,273 re-inspections regarding defects, etc.

169 inspections regarding issue of Deratting and Deratting Exemption Certificates.

FACTORIES

Local authorities are required to enforce the provisions of the Factories Acts (N.I.) 1938–1959 in relation to health and welfare of persons employed in factories and certain types of workplaces. Sections 1–8 of the 1938 Act deal with cleanliness, heating, ventilation, removal of fumes, etc., prevention of overcrowding and drainage of floors. The Act also requires a register of outworkers to be kept and empowers local authorities to prohibit the despatch of materials to their houses if notifiable infectious disease occurs in them. Two such prohibition orders were made during the year.

The following tables give details of the work carried out during the year in connection with the enforcement of the Factories Acts:—

Number of factories (Power) on register	2,393
Number of factories (Non-Power) on register	209
Other premises	302

Inspections for purposes of provisions as to Health

TABLE B 24

Premises	Inspections	Notices issued	Occupiers prosecuted
Factories with mechanical power	3,699	120	—
Factories without mechanical power	171	3	2
*Other premises under the Act (including works of building and engineering construction, but not including outworkers' premises)	415	7	1
Totals	4,285	130	3

* Electrical Stations reckoned as factories.

TABLE B 25

Defects	Instances	Remedied	Referred to Chief Factory Inspector	Prosecutions	Outstanding
Want of cleanliness (S.1)	15	22	1	1	2
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3)	3	2	1	—	1
Inadequate ventilation (S.4)	2	3	1	—	1
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary conveniences (S.7):—					
Insufficient	7	11	—	1	—
Unsuitable or defective	393	404	—	1	20
Not separate for sexes	2	2	—	—	1
Other offences (excluding offences relating to homework which are reported in Table B.38)	20	22	10	—	10
Breaches of special sanitary requirements for bakehouses (Sections 56 to 59)	2	2	—	—	—
Totals	444	468	13	3	35

* Defects remedied include defects outstanding from previous year

Factory Out Workers (Homework)

TABLE B 26

Nature of Work	Inspections	Outwork in unwholesome premises (Section 115)			Outwork in infected premises (Sections 116/117)		
		Instances	Statutory notices served	Prosecutions	Instances	Orders made	Prosecutions
1. Making, cleaning, washing, altering, ornamenting, finishing and repairing of wearing apparel ..	3	—	—	—	—	—	—
2. Making-up, ornamenting, finishing and repairing of table linen, or other household linen (including in the term "linen" articles of cotton and linen mixtures)	131	2	2	—	2	2	—
Totals	134	2	2	—	2	2	—

Outworkers premises within the City, notified during the year	..	470
Notices sent to factories employing outworkers	..	88
Notices for failing to keep or send lists of outworkers	..	5
Outworkers notified from other districts	..	10
Outworkers notified to districts outside the City	..	298

In addition to the provisions of the Factories Acts, factories are also subject to the provisions of the Public Health Acts in so far as public health nuisances are concerned. Consequently, during the visits to factories, such things as damp conditions, structural defects, etc., are actioned under the Public Health Acts. Details are as follows:—

Inspections of factories and workplaces under the Public Health Acts (N.I.) 1878 to 1926 and the Belfast Corporation Acts 1845 to 1961

Nuisances discovered	..	116
Statutory notices issued	..	87
Nuisances abated	..	101
Dangerous structures, risk of fire, etc., reported to City Surveyor	..	12
Special reports to the City Surveyor under the Planning Acts (N.I.) 1931 and 1944	..	65
Plans examined concerning new work and alterations	..	107

Details of plans for alterations of existing buildings or erection of new buildings to be used as factories, shops, etc.:—

Bakeries	..	..	..	..	..	..	..	6
Ballrooms	..	..	..	..	..	..	..	1
Bookmakers' premises	..	..	..	..	..	..	..	8
Breadshops	..	..	..	..	..	..	..	6
Chemists	..	..	..	..	..	..	..	6
Clinic	..	..	..	..	..	..	..	2
Factories	..	..	..	..	..	..	..	11
Hairdressers	..	..	..	..	..	..	..	2
Hostels	..	..	..	..	..	..	..	2
Offices	..	..	..	..	..	..	..	8
Schools	..	..	..	..	..	..	..	11
Mixed shops (non-food)	..	..	..	..	..	..	..	23
Club halls	..	..	..	..	..	..	..	5
Church halls	..	..	..	..	..	..	..	3
Warehouses	..	..	..	..	..	..	..	1
Launderettes and dry cleaners	..	..	..	..	..	..	..	10
Stables	..	..	..	..	..	..	..	2

Bakehouses

Bakehouses are factories under the Factories Acts and the health and welfare provisions of these Acts apply to them. Certain sections of the Acts also deal with insanitary and basement bakehouses but in addition to these provisions the Public Health Inspectors are concerned with the maintenance of food hygiene and the protection of food for human consumption. The Public Health (Prevention of Contamination of Food) Regulations, which are being replaced in January 1965 by the Food Hygiene (General) Regulations, provide the necessary powers to ensure reasonable standards of hygiene. During the year it was found necessary to institute legal proceedings for contraventions of these Regulations and in one instance a penalty of £75 plus costs was imposed for failing to observe due cleanliness of the food rooms and equipment contained therein. In a second instance for failing to observe reasonable precautions, a fine of £5 plus costs was imposed. In several other instances verbal warnings were given regarding unsatisfactory conditions and on subsequent inspections improvements were observed. Difficulties are still being experienced by the Department in securing a suitable rota system for the washing of wooden bread and pastry trays in some bakehouses.

In addition to the normal regular inspections of bakehouses there were 121 visits made in connection with the sampling of foodstuffs for chemical analysis. The following foodstuffs were found to be unfit for human consumption and were surrendered and destroyed:—

- 1 pint cream
- 14 lbs. dried fruit
- ½ cwt. dough mixture
- 1½ doz. eggs
- 14 lbs. dried apples
- 24 loaves bread

The table below sets out particulars of the conditions found and action by the Department during inspections of bakehouses:—

TABLE B 27

Defects	Instances	Notices	Remedied	Out-standing
Want of cleanliness in food rooms	27	16	35	6
Food rooms requiring redecoration	29	25	27	4
Ceilings, walls, floors, doors, etc., in disrepair	26	17	25	10
Equipment worn or defective, required repair or renewal	7	2	5	2
Cleanliness of machinery, tables, benches, utensils not observed	20	10	9	11
Cleanliness of persons handling foodstuffs not observed	2	2	2	—
Sanitary convenience so placed that offensive odours could penetrate food room	4	2	2	2
Unsuitable refuse containers and disposal	12	5	10	2
Unsuitable washing facilities for personal hygiene	13	11	11	3
Unsuitable washing facilities for equipment and machinery	6	4	4	2
Suitable and sufficient ventilation of food rooms not provided or maintained	7	3	4	3
Walls and ceilings of cooking and food preparation rooms not readily cleansed	4	2	3	1
Drain inlets within food rooms	—	—	—	—
Suitable precautions not taken to prevent contamination of food by insects, dirt, animals or otherwise	7	4	7	—
Other defects	21	14	15	12
Totals	185	117	159*	58

* Defects remedied include defects outstanding from the previous year.

Bread Shops

Bread shops on register at 1st January, 1964	..	..	..	305
Deletions	..	..	..	16
Additions (new premises)	..	..	..	5
Bread shops on register at 31st December, 1964	..	..	..	294
Inspections during the year	..	..	..	682

The following table gives details of the conditions found in bread shops during inspections.

TABLE B 28

Defects	Instances	Notices	Remedied	Out-standing
Want of cleanliness of food rooms	6	4	6	—
Want of cleanliness of persons handling food	—	—	—	—
Ventilation inadequate or not being maintained	2	2	3	—
Drain inlets within food rooms	1	1	1	—
Ceilings, walls, floors, windows, doors, etc., in disrepair	4	2	4	1
Ceilings, walls, floors, windows, doors, etc., required cleansing	4	3	7	2
Suitable and sufficient washing facilities not provided	4	2	5	—
Cleanliness of utensils, benches, food containers, etc., not observed	1	1	1	—
Other defects	1	1	4	3
Totals	23	16	31*	6

* Defects remedied include defects outstanding from the previous year.

Betting and Lotteries Act (N.I.) 1957

Under the Betting and Lotteries Act a licence is required to carry on a bookmaker's business and the applicant must produce a certificate that the premises from which the business is to be carried on are suitable for that purpose. Premises are inspected to ensure that they comply with the requirements of public health. If the premises on inspection are found unsuitable for use, objections to the granting of a certificate are made to a Magistrate's Court.

The following summary relating to bookmakers' premises does not include inspections or particulars of defective conditions found as these matters are included under the heading of non-industrial premises in another table in this Report.

Bookmakers' offices operating in the City	115
Applications made to the Courts for certificates of suitability	118
Certificates of suitability refused	1
Applications withdrawn	2
Objections on public health grounds	3

Non-Industrial Premises

Non-industrial premises for the purpose of this Report are workplaces in which persons are employed in any trade or business which fall outside the scope of the Factories & Shops Act and include office buildings, warehouses, etc. Power under the Public Health Acts to improve conditions is somewhat limited and although statutory notices are issued in certain instances, improvements are more often effected by requests to managements and owners. The Offices, Shops and Railway Premises Act of 1963, which is not in force in Northern Ireland, has been described as another charter in social legislation in dealing with employees in such businesses. There is a need for such legislation here and it is under active consideration by the Government Department concerned.

The following table gives particulars of conditions found in office buildings during the year:—

TABLE B 29

Conditions	Instances	Notices	Remedied
Offices overcrowded	6	5	4
Offices inadequately ventilated	4	2	3
Offices inadequately lighted	1	1	—
Offices inadequately heated	—	—	—
Offices dirty	3	2	3
Stairways and passages dirty	3	1	3
Offices, etc., requiring redecoration	4	4	—
Offices not free from noxious fumes	1	1	1
Offices in a damp state	2	2	5
Offices in a defective condition	5	4	6
Unsuitable or no drinking water	—	—	—
Unsuitable or no washing facilities	4	3	1
Other defects	—	—	—
<i>Sanitary Accommodation:</i>			
Insufficient	—	—	1
Not separate for the sexes	—	—	—
Dirty state	2	2	5
No intervening ventilated spaces, screening, etc.	—	—	—
Defective conditions, etc.	7	2	38
Unsuitable urinals	3	2	2
Totals	45	31	72*

* Defects remedied include defects outstanding from the previous year.

Pharmacy and Poisons Act (N.I.) 1955

Poisons Regulations (N.I.) 1956

The main duties of the Department in connection with the above mentioned Act and the Regulations made thereunder are the registration of the persons and premises (other than chemists and pharmacists) storing and selling to the general public substances and preparations containing poisons included in Part 2 of the Poisons Schedule.

Although a registered trader is entitled to sell preparations containing all the poisons in the schedule it is found in practice that there are two types of traders: (a) The shopkeeper engaged mainly in the horticultural business who sells arsenical, nicotine, formaldehyde, shinol, etc., preparations used for weed killing, seed dressings and horticultural sprays, etc., and (b) the general traders, grocers, hardware and paint shops who sell the more common household preparations like ammonia, carbolic disinfectants, caustic soda, paint removers, etc. The Local Authority is empowered to register or to refuse registration of persons selling direct to the public any of the poisons in Part 2 of the Poisons Schedule and is required under the Act to maintain a Register of all persons so registered in their area.

The following is a summary of the work carried out during the year.

Premises on register at 1st January, 1964	..	..	..	313
Deletions	..	..	..	20
Additions (new registrations)	..	..	..	3
Premises on register at 31st December 1964	..	..	..	296
Inspections	..	..	..	323
Contraventions discovered	..	..	..	4

Rag Flock Act 1911 and Rag Flock Regulations 1912

Inspections are carried out of manufacturers premises and samples taken to ensure that flock fillings manufactured from rags are of the prescribed standard of cleanliness. All the samples of rag flock taken for analysis during the year complied with the Regulations and the following is a summary of the inspections and samples taken under the above Act and Regulations:—

Premises where rag flock is used	..	..	..	..	40
Inspections of premises	..	..	..	..	51
Samples of rag flock submitted to Public Analyst	..	..	..	..	37
Samples in compliance with Regulations	..	..	..	..	37

Shops Act (N.I.) 1946

The following are details of the work carried out during the year under the Shops Act (N.I.) 1946:—

Shops on Department's register	..	..	..	..	6,746
Complete surveys made	..	..	..	..	965
Inspections	..	..	..	..	2,937
Contraventions discovered	..	..	..	..	94
Statutory notices issued	..	..	..	..	54

TABLE B 30

Defects	Instances	Notices	Remedied	Out-standing
Suitable and sufficient means of ventilation not provided	4	4	2	2
Suitable and sufficient ventilation not maintained	2	1	1	1
Efficient means for securing a reasonable temperature not provided	3	2	1	1
Suitable temperature not maintained	2	1	1	1
Suitable and sufficient means of lighting not provided or maintained	—	—	—	—
Insufficient or unsuitable washing facilities	16	8	20	—
Unsuitable facilities for the taking of meals	1	1	1	—
<i>Sanitary Accommodation:</i>				
Insufficient	2	2	2	—
Not provided separately for the sexes	—	—	1	—
Ventilation inadequate	5	5	6	2
Lighting inadequate	1	1	1	—
Floors, walls, basins, seats, cisterns, etc., defective or dirty	55	27	56	14
Screening, doors, fasteners, etc., not provided or defective	2	1	—	5
Absence of an intervening space	1	1	—	1
Separate means of approach not provided	—	—	—	—
Totals	94	54	92*	27

* Defects remedied include outstanding defects from the previous year.

Inspections of Shops under the Public Health Acts (N.I.) 1878 to 1962

In addition to the surveys of shops under the provisions of the Shops Act, inspections are made for contraventions of the Public Health Acts for damp and defective conditions likely to be injurious to the health of employees, or conditions contravening local By-Laws. The following are the particulars of work carried out during the year in this connection:—

Public health nuisances discovered	..	..	..	102
Statutory notices issued	..	..	..	63
Nuisances abated	..	..	..	99
Contraventions not complied with at 31st December, 1964	..	..	..	27
Reports of contraventions of building By-laws	..	..	..	5
Reports of dangerous conditions	..	..	..	7

Fabrics (Misdescription) Act 1913

Fabrics (Misdescription) Regulations (N.I.) 1959

The Fabrics (Misdescription) Act is designed to protect the public against the sale of clothing or fabrics falsely described as flame or fireproof or fire resistant.

The Act makes it unlawful for any person to sell, or expose for sale, or have in his possession for the purpose of sale, any textile fabric, either in the piece or made up into garments, to which is attributed the term non-inflammability or safety from fire, either by markings on the label or by verbal representations at the time of sale unless such textile fabric conforms to the standards of non-inflammability prescribed by the Regulations. These Regulations prescribe two standards, one to which fabrics must conform if they are described in terms which suggest they are non-inflammable and the other a lower (but nevertheless stringent) standard for which some degree of non-inflammability or flame proofing is claimed. Two children's garments were submitted to the Textile Testing House during the year: both were certified to be in compliance with the prescribed standards.

Marine Stores

TABLE B 31

Defects	Instances	Notices	Remedied	Out-standing
Walls in rooms not rendered vermin proof	—	—	—	—
Rooms not properly lighted	3	1	5	—
Rooms not properly ventilated	3	1	5	—
Materials stored so as to obstruct lighting or ventilation	3	1	4	—
Dustbins not provided or trade refuse not removed weekly	2	1	2	—
Premises not kept in a clean state	3	1	2	3
Walls, ceilings, partitions, etc., required redecoration	3	1	2	3
Premises, apparatus, utensils, etc., not kept in a state of repair	—	—	—	—
Yards, loading bays, etc., not properly surfaced	—	—	—	—
Other defects	4	2	2	2
<i>Sanitary Accommodation:</i>				
Insufficient	1	1	1	—
Not properly lighted	2	1	2	—
Not properly ventilated	2	1	2	—
In a dirty state	2	1	2	—
In a defective condition	3	1	2	2
Totals	31	13	31	10

Inspections	237
Statutory notices issued	13
Repairs effected..	10

FOOD AND DRUGS

The work of this section tends to increase each year due to additional duties which have to be administered under new legislation. The following regulations relating to the composition of food becomes law during the year:—

(i) The Meat (Treatment) Regulations (Northern Ireland) 1964, which make it an offence to sell, consign or deliver any raw and unprocessed meat intended for sale for human consumption which contains any Ascorbic Acid, Erythorbic Acid, Nicotinic Acid, Nicotinamide or any salt or other derivative of any of the above mentioned substances.

(ii) The Liquid Egg (Pasteurisation) Regulations (Northern Ireland) 1963, (operative 1st January, 1964), which require the pasteurisation of liquid egg, which is to be used in food for human consumption, other than eggs broken out on the food manufacturer's premises and used within 24 hours. The regulations also prescribe the method of sampling and the procedure to be carried out when applying the Alpha-Amylase test.

(iii) The Soft Drinks Regulations (Northern Ireland) 1964 which control the labelling and composition of soft drinks (partly operative on 18th June, 1964, and becoming fully operative on 2nd June, 1965).

(iv) The Mineral Hydrocarbons in Food Regulations (Northern Ireland) 1964, (operative 16th November, 1964), which prohibit (subject to certain exemptions relating to specified foods) the use of any mineral hydrocarbon in the composition or preparation of food.

In the spring of the year much of the Food Inspectors time was taken up examining consignments of imported corned beef from the Argentine, (arising from the outbreak of typhoid fever in Aberdeen). 270 x 6 lb. tins bearing the suspected serial numbers were found in premises throughout the City. These tins were withdrawn from sale pending instructions from the Ministry of Health.

Food Sampling

1,075 samples were procured for chemical analysis and of these 25 were found to be adulterated. 20 of the adulterated samples were butchers' products, i.e., sausages, sausage meat and steak mince. The Courts imposed fines amounting to £90 for the offences. In another case rolls sold as rolls and butter were found on analysis to be spread with margarine. Legal proceedings were instituted and a fine of £2 was imposed.

The following table shows the number of samples procured for chemical analysis during the past five years and the percentage of adulterated samples.

TABLE B 32

Year	Number			Adulterated			Percentage adulterated		
	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total
1960	1,410	4	1,414	23	—	23	1.63	—	1.63
1961	1,273	12	1,285	38	3	41	2.99	25.00	3.19
1962	1,130	7	1,137	48	—	48	4.25	—	4.25
1963	1,092	6	1,098	36	1	37	3.30	16.67	3.37
1964	1,044	31	1,075	22	3	25	2.10	9.67	2.32

Samples of Food and Drugs analysed by the Public Analyst

TABLE B 33

Article	Number	Article	Number
Ale	1	Doughnuts, artificial cream	1
Almonds, ground	3	Doughnuts, fresh cream	1
Apples, liquid	1	Drink, food	1
Arrowroot	1	Dripping	3
Banana (Informal)	1	Eclairs, real cream	1
Barley	3	Eggs, liquid frozen (Inf.)	21
Beans, dried French	1	Essence, coffee and chicory	3
Beef, corned	4	Farola	1
Beef, minced	27	Fat, cooking	5
Beer	4	Flavouring, vanilla	1
Brandy	3	Flavouriser, aromat	1
Bread, oven soda	1	Flour, plain	3
Bread and butter	1	Flour, self-raising	1
Butter	10	Fruit, dried	3
Buttermilk	11	Fudge, buttered	1
Cakes, artificial cream	1	Gelantine	1
Cake, chocolate	1	Gin	3
Cakes, fish	4	Ginger, buttered	1
Cakes, fresh cream	2	Ginger in syrup	1
Cheese	2	Glycerine, lemonade honey	1
Cheese, lemon	3	Grapefruit (Inf.)	1
Cherries, glace	1	Gum, chewing	2
Chicken minced in jelly	1	Ham, cooked (Informal)	1
Chocolate, drinking	1	Ham, pressed	2
Cider	1	Honey	2
Cocoa	1	Ice-cream	75
Coffee, instant	1	Icing, cake	1
Coffee, pure ground	1	Jam	6
Concentrate, ginger wine	1	Jelly, table	2
Condiment, non-brewed	6	Juice, fruit	3
Conffectionery	4	Kernels, peanut	1
Colouring, food	1	Ketchup, mushroom	1
Cookies, fresh cream	1	Ketchup, tomato	2
Corn, whole kernel	1	Lard	1
Cough elixir	1	Lemon (Informal)	1
Crab meat, canned	1	Lentils	1
Cream, double	1	Linctus, codeine	1
Cream, salad	3	Linctus, cherry cough	1
Cream, single	3	Liqueur, Irish coffee	1
Cream, whipping	4	Loaf, milk	1
Cream of tartar	2	Lollipops	8
Crystals, foam	1	Luncheon meat	1
Crystals, jelly	1	Luncheon sausage	1
Curd, lemon	1		

TABLE B 33 *continued*)

Article	Number	Article	Number
Macaroni	1	Rissoles, meat	1
Margarine	5	Rock, cough	1
Marmalade	3	Roll, vegetable meat	23
Marzipan	2	Roll, sausage	3
Meat, casserole	1	Rolls, buttered	1
Milk, full cream condensed unsweetened	1	Rum	3
Milk, condensed skimmed sweetened	1	Sal Volatile	1
Milk, full cream condensed	1	Salt, celery	1
Milk, dried full cream compounded	1	Salt, liver	1
Milk, rich	1	Salt, table	1
Mincemeat, sweet	2	Salmon, canned	1
Mix, cake	2	Sauce	1
Mix, parsley sauce	1	Sausages and sausage meat	269
Mustard	2	Savoury duck	1
Nitre, sweet spirits of	1	Scones and butter	3
Nutmeg	1	Semolina	1
Oil, castor	1	Sherry	3
Oil, corn	1	Soda, bicarbonate of	2
Oil, olive	1	Soft drinks	26
Ointment, sulphur B.P.	2	Soup and soup mix	8
Ointment, zinc B.P.	1	Spice, mixed	1
Onions, dehyd.	1	Spread, beef and butter	1
Oranges (Informal)	1	Spread, cheese	2
Paraffin, liquid B.P.	3	Spread, date	1
Paste, tomato	1	Spread, salmon and butter	2
Pates, mushroom	1	Steak, minced	136
Peaches in heavy syrup	1	Stew, Irish	1
Peanuts	1	Strawberries in heavy syrup	1
Peas, garden	2	Stuffing, sage and onion	1
Peas, split	1	Sucrom	1
Pectin, fruit	1	Suet, shredded	2
Peel, cut	4	Sweetmilk	161
Pepper, white	1	Syrup, blackcurrant	1
Peroxide, hydrogen	1	Syrup, glucose	1
Piccalilli	1	Syrup of figs	1
Pickles	3	Syrup, milk shake	1
Pie, steak and kidney	2	Syrup, white pine and tar	2
Potatoes, instant mashed	2	Tablets, aspirin	1
Powder, baking	2	Tablets, saccharin	1
Powder, boracic	1	Tablets, slimming	1
Powder, curry	2	Tablets, vitamin	1
Powder, custard	1	Tea	6
Powder, golden raising	1	Tea, china	1
Powder, headache	1	Thyme, dried	2
Powder, milk	1	Tongue	3
Porkburgers	1	Truffles	1
Pudding, treacle	1	Vinegar, malt	6
Quinine, ammoniated tincture of	1	Vodka	2
Rennet, essence of	2	Wheat, germ	1
Relish, Yorkshire	2	Whiskey	6
Rice	3	Wine	1
Rice, ground	1	Wine, apricot	1
		Wine, green ginger	1
		Total	1,075

Legal proceedings in respect of adulterated foods

TABLE B 34

Sample	Number	Adulterations	Prosecutions	Convictions	Fines	Costs
Ice-cream	75	1	1	1	£6 0 0	£2 11 0
Rolls, buttered	1	1	1	1	£2 0 0	£2 7 0
Sausages and sausage meat	269	10	10	10	£45 0 0	£23 3 2
Steak, minced	136	10	10	10	£45 0 0	£23 13 3

In 3 cases of adulteration of soft drinks in which no legal proceedings were instituted, the owners of the food sold were cautioned by letter.

Particulars of samples specially reported by the Public Analyst during the year:—

Buttered Rolls. The fat which was spread on a sample of buttered rolls was margarine and not butter.

Buttermilk. One sample containing 6.6 per cent. solids-not-fat (against 6.8 per cent) was returned as inferior.

Ice Cream. One sample was 30 per cent deficient in fat containing 3.5 per cent of fat against 5 per cent minimum prescribed by the Ice Cream Regulations. Two samples containing 4.8 per cent were returned as inferior.

Marzipan. One sample, slightly below average in almond content, was returned as inferior.

Minced Beef. Three samples, containing traces of sulphur dioxide of the order of 60 parts per million, were returned as inferior.

Minced Steak. Ten samples contained sulphur dioxide in amounts ranging from 100 to 1,900 parts per million. Addition of sulphur dioxide to minced steak is forbidden by the Preservatives in Food Regulations (N.I.) 1962.

Rice. One sample, in which 0.7 per cent of talc was found (the recommended limit is 0.5 per cent) was returned as inferior.

Sausages and Sausage Meat. Ten samples contained sulphur dioxide in amounts ranging from 540 to 2,800 parts per million. Sausage meat may contain a maximum of 450 parts per million of sulphur dioxide, when declared. (Preservatives in Food Regulations (N.I.) 1962).

'Slim-u-ettes' Slimming Tablets. The tablets contained small amounts of Vitamin B₁, Bile Salts and Phenolphthalein, which possess little value either as slimming tablets or slimming aids.

Soft Drinks. Two samples of lemonade were found to be contaminated by traces of phenolic type disinfectant, either by use of contaminated bottles or tainted stoppers, to an extent which rendered each product unfit for consumption. One sample of still lemon was found to contain solid debris consisting of fruit cells, yeast and mould. One sample of clear lemonade, which was a little cloudy due to the presence of suspended matter, containing vegetable debris, vegetable spores, starch granules and woody matter, was returned as inferior.

MILK CONTROL

The following tables indicate the comprehensive control exercised over milk sold within the city.

Licensed producers of milk	..	..	..	..	..	3
Milch cows on licensed producers' premises (average)						67
Dairies where milk is pasteurised	..	..	..	..	..	3
Gallons of milk pasteurised per day (average)	..	..	..	..	..	43,000
Retail distributors of milk	..	..	..	..	..	1,310
Inspections of dairies, cowsheds and milkshops	..	..	..	..	..	1,285
Samples of sweetmilk taken for chemical analysis under Food and Drug Act	..	..	..	..	..	161
Samples of sweetmilk taken for bacteriological examination	..	..	..	..	..	940
Samples of sweetmilk taken for culture examination	..	..	..	..	..	189

Particulars of sweetmilk samples procured for chemical analysis during five years 1960-1964

TABLE B 35

Year	Number	Adulterated	Percentage adulterated
1960	196	2	1.02
1961	186	8	4.30
1962	212	1	0.47
1963	197	—	—
1964	161	—	—

Average monthly composition of milk samples submitted and examined by Public Analyst

TABLE B 36

Month	Number	Total solids per cent	Fat per cent	Solids not fat per cent
January	10	12.50	3.69	8.81
February	10	12.42	3.62	8.80
March	12	12.49	3.54	8.75
April	10	12.10	3.50	8.60
May	2	12.30	3.50	8.80
June	—	—	—	—
July	5	12.10	3.40	8.70
August	3	12.26	3.50	8.76
September	15	12.67	3.96	8.71
October	60	12.60	3.90	8.70
November	29	12.40	3.80	8.60
December	5	12.38	3.74	8.64

Bacteriological Examination of Milk

Biological tests carried out on farm bottled milk had to be discontinued toward the end of the year due to the shortage of guinea pigs. All samples of farm bottled milk are now cultured for tubercle bacillus and also submitted to the Ring test for the presence of brucella abortus.

A total of 1,129 samples of sweetmilk were procured during the year by the Food Inspectors from retail and wholesale sources for examination at the Central Laboratory. This total includes 123 samples taken from school supplies, delivered under contract.

Particulars of bacteriological examination of milk

TABLE B 37

Test	Grade	Samples examined	Satisfactory		Unsatisfactory	
			Number	Percentage	Number	Percentage
Plate Count	Farm bottled	*96	76	80.85	18	19.15
Coliform	Farm bottled	*96	94	100.00	—	—
	Pasteurised	844	779	92.30	65	7.70
Phosphatase	Pasteurised	844	841	99.64	3	0.36
Culture	Farm bottled	189	189	100.00	—	—
Viable Organisms	Farm bottled	189	159	84.13	30	15.87

* Tests of 2 samples of farm bottled milk were invalidated due to a laboratory accident.

Bacteriological examination of milk supplied to schools

TABLE B 38

Test	Grade	Samples	Satisfactory		Unsatisfactory	
			Number	Percentage	Number	Percentage
Coliform	Pasteurised	123	114	92.68	9	7.32
Phosphatase	Pasteurised	123	123	100.00	—	—

Mineral Waters

189 samples of mineral waters taken for bacteriological examination during the year proved to be satisfactory. 22 samples purchased for chemical analysis were found to be genuine.

Frozen Confectionery

258 samples of frozen confectionery were submitted for bacteriological examination: of this number 52 were found to be unsatisfactory due to the presence of coliform organisms. Each case was investigated by the Food Inspectors and remedial measures taken.

Bacteriological Examination of Imported Eggs and Egg Powder

Samples taken for examination:

Frozen Eggs	..	..	..	..	..	..	47
Dried Eggs	..	..	..	..	..	..	6
Egg Albumen	..	..	..	..	..	..	1

No salmonella organisms were isolated in any of the samples taken.

The Alpha-Amylase Test

21 samples of Liquid Egg procured from bakeries and bakery sundriesmen were found to comply with the Liquid Egg (Pasteurisation) Regulations (N.I.) 1963 which became law on 1st January, 1964.

Desiccated Coconut

During the year the Food Inspectors submitted 49 samples of desiccated coconut for bacteriological examination. No intestinal pathogens were isolated in any of the samples.

Merchandise Marks Acts 1887 to 1963

Routine visits were made in connection with the marking of imported foods. In 27 instances the vendor's attention was drawn to incorrect markings. Verbal warning was given to the blender of "Imported Honey" whose label did not comply with the Merchandise Marks (Imported Goods) No. 3 Order, 1928.

Imported Fruits

The Preservatives in Food Regulations (N.I.) 1962, prescribe that the skin but not the flesh of a banana may contain nystatin. Samples submitted to the Public Analyst were found to be in compliance with the Regulations. Several examples of Citrus Fruits were examined and found to comply with the Colouring Matter in Food Regulations (N.I.) 1961.

The control of food unfit for human consumption

The following tables classify the various types of food examined and found to be unfit for human consumption. Fire damage in four grocery premises accounted for a large and varied selection of foodstuffs which had to be destroyed, and flooding in a confectionery store resulted in contamination by sewage of a quantity of chocolate and toffees. Comment was made in previous Annual Reports

on the number of imported canned hams found unfit for human consumption. Over 19 tons were destroyed during the year. A whole consignment consisting of 2,844 tins of pressed sandwich ham imported from Yugoslavia had to be destroyed. In view of the unsatisfactory condition of this product the matter was referred to the Ministry of Health for appropriate investigation in the country of origin.

Over the Christmas period 105 poultry and 8 turkeys were seized in the public markets. Prosecutions were instituted and fines totalling £145 were imposed by the Courts.

Unsound foodstuffs surrendered by traders after inspection and destroyed or disposed of otherwise than for the food of man

TABLE B 39 (a)

Articles	Tins, jars, packets, cartons, bottles	Articles	Tins, jars, packets, cartons, bottles
Asparagus	85	Jellies	59
Baby food	1,114	Marcaroni	52
Baking powder	10	Marmalade	460
Barley	113	Meat	5,729
Beans	6,280	Milk	1,133
Beetroot	135	Miscellaneous	3,193
Biscuits, wafers, cones	122	Mustard	4
Cake Mix	7	Paste	116
Carrots	601	Peas	4,274
Cereal	1,189	Pickles	58
Cheese spread	82	Potato crisps	48
Cheese	1,437	Pudding	769
Coffee	32	Rice	2,096
Condiments	89	Salad cream	117
Confectionery	3,875	Salt	297
Cordials	11	Soup	15,940
Corn	168	Soup mix	383
Cream	327	Spaghetti	622
Fish	1,663	Stew	179
Food beverage	1	Syrup	3
Frozen foods	30	Tomatoes	1,414
Fruit	16,903	Tomato juice	530
Fruit juice	2,395	Treacle	1
Ham	1,170	Vegetables	474
Jam	393	Vegetable juice	31

TABLE B 39 (b)

Articles	Tons	Cwts.	Qrs.	Lbs.	Articles	Tons	Cwts.	Qrs.	Lbs.
Beans	—	5	—	17	Ham	19	14	1	6
Butter	—	10	2	23	Lentils	—	1	—	—
Carrots	—	3	1	5	Margarine	—	1	1	25
Cereal	—	1	—	14	Meat	1	13	1	15
Cheese	—	12	3	8	Peas	1	17	3	11
Coconut	—	10	1	6	Rice	—	2	2	5
Confectionery	1	3	2	18	Salt	—	1	—	5
Cooking fat	—	2	1	19	Sugar	—	1	2	6
Dried fruit	—	17	3	19	Tea	—	14	2	10
Fish	—	19	1	14	Tomatoes	—	6	2	6
Flour	—	2	—	22	Tomato puree	—	5	—	21
Fruit	9	6	3	3	Walnuts	—	2	1	14

7,345 certificates were issued during the year in connection with unfit foods surrendered and destroyed.

Unsound food seized and destroyed in pursuance of Magistrates' Orders

392 lbs. bacon; 6 lbs. rice; 3 tins picnic shoulder; a portion of pork fillet; 1 coconut; 1 bottle lemonade; 8 turkeys; 122 fowl; 2 bottles of milk; 2 chocolate covered rolls.

Foreign matter in Food

- *Blow fly in fish finger
- *Cockroach in potato chips
- *Foreign matter in bottle of milk (2 instances)
- *Live insects in ready cooked groats.
- *Maggots in packet of rice.
- *Mould on chocolate covered rools (2 instances).
- *Mould on sausage meat roll
- Maggot in bar of chocolate
- Mould on cream apple puffs
- Foreign matter in cream eclairs
- Mould on sausage rolls
- Mould on cream pastry
- Mould on wheaten meal loaf
- Wasp in scone
- *Nail in sultana cake
- Piece of glass in loaf of bread
- Nail in soda farl
- Metal object in ginger cake
- Hairs in milk scone
- Oil in loaf of bread
- Mould on meat pies
- *Cockroach in cream pastry
- *Mould on apple puff
- *Metal object in loaf

* Denotes legal proceedings taken.

ICE-CREAM

Food and Drugs Act (N.I.) 1958

Ice-Cream (Composition, Heat Treatment Labelling, etc.) Regulations (N.I.) 1961 and 1963

Regular sampling of ice-cream for bacteriological examination continued throughout the year. In all cases of unsatisfactory reports the Food Inspectors visited the premises and examined the methods of manufacture and storage. A prolonged series of unsatisfactory samples were from ice-cream manufactured outside the city. The appropriate Health Authority was requested to investigate the cause at the manufacturers' plant. Towards the end of the year an improvement was effected. 75 formal samples of ice-cream were purchased for chemical analysis. One sample was found to be 30% deficient in fat content: legal proceedings were instituted and a fine of £6 imposed.

Particulars of premises registered for the manufacture and sale of ice-cream

TABLE B 40

Particulars	Manufacture	Manufacture and sale	Manufacture and sale of soft ice-cream	Sale only	Vending machines	Storage	Total
Premises registered at 1st January, 1964	2	35	—	897	1	2	937
Deletions	—	2	—	57	—	1	60
Registrations	—	2	4	101	—	2	109
Premises on register at 31st December, 1964	2	35	4	941	1	3	986

Inspections	..	..	..	..	..	..	1,694
Summons for selling ice-cream in unregistered premises				..	..	..	1
Samples submitted for bacteriological examination	..			..	..	..	881
Samples submitted for chemical analysis	..			..	..	..	75
Cautionary letters sent	..	..	..	..	..	..	71

TABLE B 41

Particulars of ice-cream samples taken during the year for chemical analysis

Complied with standards		Did not comply with standards			
Number	%	Fat		Total Solids	
		Number	%	Number	%
74	98.67	1	1.33	—	—

The Ice-Cream (Heat Treatment, etc.) Regulations (N.I.) 1961

Methylene Blue Test (881 samples)

TABLE B 42

Grade	Number	Percentage
1	743	84.34
2	67	7.60
3	43	4.88
4	28	3.18

Conditions discovered on inspection of ice-cream premises

TABLE B 43

Conditions	Instances	Remedied	In progress	Outstanding
Suitable and sufficient personal washing facilities not provided	3	3	—	—
Wash-hand basin not provided for personal washing facilities	2	2	—	—
Wash-hand basin: hot and cold water not provided or insufficient	3	3	—	—
Supply of soap and clean towels not provided	1	1	—	—
Other defects	1	2	—	—
Totals	10	11*	—	—

* Defects remedied include outstanding defects from previous year.

FOOD HYGIENE

The enforcement of cleanliness in food premises is an important part of the Food Inspectors' duties. The frequency of visits depends on the type of business and other circumstances. The number of cafes and snack bars in the city continues to increase as improved economic conditions enable more people to dine out.

The new Food Hygiene (General) Regulations (N.I.) 1964 will replace the Public Health (Prevention of Contamination of Food) Regulations (N.I.) 1948 as from 1st January, 1965. These regulations make provision for the cleanliness of food premises, stalls, apparatus and equipment; the hygienic handling of food; the cleanliness of persons engaged in the handling of food and of their clothing and the action to be taken where they suffer from or are carriers of certain infections; the construction, repair and maintenance of food premises, stalls, vehicles, etc. and the facilities to be provided; the temperature at which certain foods which are particularly liable to transmit disease are to be kept in food premises.

At the request of the South Belfast Hospital Management Committee a survey was made of the existing catering facilities under their control and recommendations made for improvements to comply with the new Food Regulations.

Details of plans showing proposed alterations to food premises

148 plans were submitted to the Department during the year to ensure that the premises, classified as follows, complied with the relevant legislation.

Licensed premises	..	..	..	..	..	..	40
Hotels	..	..	..	..	..	..	14
School meals kitchens	..	..	..	..	..	..	17
Confectionery premises	..	..	..	..	..	..	8
Butchers' shops	..	..	..	..	..	..	9
Abattoir	..	..	..	..	..	..	1
Restaurants	..	..	..	..	..	..	9
Fish and chip shops	..	..	..	..	..	..	10
Supermarkets	..	..	..	..	..	..	9
Meals hostels	..	..	..	..	..	..	4
Cafes	..	..	..	..	..	..	15
Grocery and provision shops	..	..	..	..	..	..	3
Industrial canteens	..	..	..	..	..	..	1
Sports clubs	..	..	..	..	..	..	2
Welfare homes	..	..	..	..	..	..	2
Fruit and vegetable shops	..	..	..	..	..	..	1
Fish and poultry shops	..	..	..	..	..	..	1
Tea Blenders	..	..	..	..	..	..	1
Potato warehouse	..	..	..	..	..	..	1
							—
							148

The Town Planning Officer asked for our comments on the proposed conversion of existing property into the following types of food premises:—

Hotels	..	..	..	..	..	..	7
Cafes	..	..	..	..	..	..	5
Fish and chip shops	..	..	..	..	..	..	4
Food stores	..	..	..	..	..	..	3
Confectionery premises	..	..	..	..	..	..	1
Licensed premises	..	..	..	..	..	..	3
Butchers' shops	..	..	..	..	..	..	1
							—

Inspections of food premises

Inspection by trade or business (excluding bakehouses and bread shops)

The following tables give details of the inspections carried out and the action taken in the various types of food premises throughout the City.

TABLE B 44

Trade or Business	Inspections	Trade or Business	Inspections
Bacon curing stores	26	Milk bars	19
Bottling stores	23	Milk retailers	1,285
Butchers	1,885	Mineral water factories	125
Chemists	29	Mobile vans	18
Cold stores	17	Pastry shops	57
Confectioners	2,945	Pet food manufacturers	28
Fish	516	Pet food shops	9
Fish and chips	663	Poultry	633
Food manufacturers	70	Provisions	1,534
Fruiterers	1,385	Public houses	680
Grocers	4,999	Restaurants	1,023
Hawker's carts	58	School meals kitchens	49
Ice-cream	1,694	Shellfish on foreshore	40
Industrial canteens	72	Supermarkets	264
Markets	637	Wholesale stores	750
Meat factories	91		
		Total	21,744

Butchers' premises

Premises registered at 1st January, 1964	..	..	..	..	393
Deletions	..	..	..	..	19
Registrations	..	..	..	..	29
Premises registered at 31st December 1964	..	..	..	..	403
Inspections	..	..	..	..	1,885

Defective conditions discovered on inspection of butchers' premises

TABLE B 45

Conditions	Instances	Remedied	In progress	Out-standing
Ceilings, walls, doors, windows, floors, etc., in disrepair	6	6	1	1
Ceilings, walls, doors, windows, floors, etc., required cleansing	6	6	—	—
Sanitary conveniences communicating direct with food room	1	—	1	—
Suitable and sufficient personal washing facilities not provided	6	7	1	2
Supply of soap and clean towels not provided	3	2	1	—
Cleanliness of equipment and utensils not observed	1	1	—	—
Fixtures and fittings in a state of disrepair	—	1	—	—
Lighting and ventilation not provided and maintained	1	1	—	—
No proper preparation room provided	—	1	—	—
Refuse bin accommodation unsatisfactory	2	2	—	—
Sink: not provided for cleansing utensils	1	1	—	—
Sink: waste pipe untrapped or connected direct to drain	—	3	—	—
Wash-hand basin not provided for personal washing facilities	5	5	—	—
Yard surface, etc., dirty or defective	1	1	—	—
Drain inlets within a food room	1	1	—	—
Other defects	12	13	—	—
<i>Sanitary accommodation:</i>				
Not in compliance or not provided for each sex	1	1	—	—
Floors, basins, walls, seats, etc., dirty or defective	4	4	—	—
Flush to water-closet basin defective or inadequate	3	1	1	1
Totals	54	57*	5	4

* Defects remedied include outstanding defects from previous year.

Defective conditions discovered in food premises (excluding butchers, ice-cream, fish and chip shops, restaurants, cafes, snack, bars, canteens and licensed premises)

TABLE B 46

Conditions	Instances	Remedied	In progress	Outstanding
Sanitary accommodation communicating direct with food rooms	—	1	—	—
Suitable and sufficient personal washing facilities not provided	12	13	1	—
Supply of soap and clean towels not provided	3	3	—	—
Ceilings, walls, doors, windows, floors, etc., in disrepair	7	6	1	—
Ceilings, walls, doors, windows, floors, etc., require cleansing	12	17	—	—
Lighting and ventilation not provided or insufficient	1	2	1	1
Cleanliness of equipment and utensils not observed	2	2	1	—
Equipment worn or defective	—	1	—	—
Failure to prevent risk of contamination of food	3	2	1	—
Fixtures and fittings in state of disrepair	—	1	—	—
Refuse bin accommodation unsatisfactory	—	1	—	1
Proper refuse bins not provided	4	6	—	—
Sink: not provided for cleansing utensils	1	1	—	1
Sink: hot and cold water not provided or insufficient	—	4	—	3
Sink: wastepipe untrapped or connected direct to drain	—	3	—	—
Wash-hand basin not provided for personal washing facilities	4	6	—	—
Drain inlets in food room	1	1	1	—
Yard surface, etc., dirty or defective	8	9	—	—
Other defects	50	57	—	—
<i>Sanitary accommodation:</i>				
Not in compliance or provided for each sex	5	6	—	1
Floors, walls, basins, seats, etc., dirty or defective	14	18	—	—
Flush to water-closet basin defective or inadequate	5	4	—	2
Screens, doors, fasteners, etc., defective or not provided	1	—	—	1
Totals	133	164*	6	10

* Defects remedied include outstanding defects from previous year.

Defective conditions discovered in restaurants, cafes, snack bars and industrial canteens

TABLE B 47

Conditions	Instances	Remedied	In progress	Outstanding
Sanitary conveniences communicating direct with food rooms	1	1	—	—
Suitable and sufficient personal washing facilities not provided	2	2	—	—
Dining rooms: walls, ceilings, floors, windows, etc., in disrepair	1	1	—	—
Kitchens: walls, ceilings, floors, windows, etc., in disrepair and required cleansing	5	6	—	—
No proper preparation room provided	1	2	—	—
Preparation rooms: walls, ceilings, floors, windows, etc., in disrepair and required cleansing	6	4	—	2
Cooking ranges not provided with means for removal of fumes or assessible for cleansing	1	1	—	—
Sink: not provided for cleansing utensils	1	1	—	—
Other defects	7	8	—	—
<i>Sanitary accommodation:</i>				
Not in compliance or not provided for each sex	5	5	—	—
Floors, walls, basins, seats, etc., dirty or defective	2	2	—	—
Totals	32	33*	—	2

* Defects remedied include outstanding defects from previous year.

Defective conditions discovered in licensed premises and bottling stores

TABLE B 48

Conditions	Instances	Remedied	In progress	Outstanding
Sanitary conveniences communicating direct with food room	2	2	3	—
Suitable and sufficient personal washing facilities not provided	4	4	—	—
Preparation room: walls, floors, ceilings, windows, etc., in disrepair	—	2	—	—
Bars and parlours: walls, ceilings, floors, windows, etc., require cleansing	—	1	—	—
Bars and parlours: walls, ceilings, floors, windows, etc., in disrepair	4	4	3	—
Beer cellars and bottle stores: walls, ceilings, floors, windows, etc., in disrepair	2	3	1	3
Beer cellars and bottle stores: walls, ceilings, floors, windows, etc., require cleansing	3	6	—	—
Bottling stores: walls, ceilings, floors, windows, etc., require cleansing	2	2	—	—
Bottle washing facilities insufficient or not provided	—	2	—	—
Lighting and ventilation not provided or insufficient	2	3	—	1
Glasses: unsatisfactory method of cleansing	1	1	—	—
Sink: not provided for cleansing utensils	1	1	—	—
Sink: hot and cold not provided or insufficient	—	3	2	2
Sink: wastepipe untrapped or connected direct to drain	—	2	—	—
Refuse bin accommodation unsatisfactory	—	1	—	—
Storage of food: inadequate or unsatisfactory accommodation	—	1	—	—
Wash-hand basin not provided for personal washing facilities	—	2	1	—
Yard, having surfaces, etc., defective	—	1	—	—
Drain inlets within a food room	—	2	2	—
Other defects	7	10	—	—
<i>Sanitary accommodation:</i>				
Not in compliance or not provided for each sex	3	3	1	1
Floors, basins, seats, walls, etc., dirty or defective	4	4	1	2
Urinals: defective or insanitary	1	2	1	—
Totals	36	62*	15	9

* Defects remedied include outstanding defects from previous year.

Belfast Corporation (General Powers) Act (N.I.), 1948, Section 25

Registration and Inspection of Premises used for the business of a Vendor of Fried Fish and Fried Potatoes

Registered at 1st January, 1964	..	..	..	..	210
Registered during the year	..	..	..	..	25
Registrations cancelled	..	..	..	..	20
Registered at 31st December 1964	..	..	..	..	215
Inspections	..	..	..	..	663

Conditions discovered on inspection of fish and chip shops

TABLE B 49

Conditions	Instances	Remedied	In progress	Outstanding
Ceilings, walls, doors, windows, floors, etc., require cleansing	5	3	1	2
Ceilings, walls, doors, windows, floors, etc., in disrepair	2	3	—	—
No provision to prevent solid matter entering drains	2	1	1	—
Suitable and sufficient personal washing facilities not provided	3	3	—	—
Supply of soap and clean towels not provided	2	2	—	—
Lighting and ventilation not provided or insufficient	1	—	—	1
Cleanliness of utensils and equipment not observed	1	1	—	—
Storage of food: inadequate or unsatisfactory accommodation	1	1	—	—
Failure to prevent risk of contamination of food	2	1	1	—
Wash-hand basin not provided for personal washing facilities	3	3	—	—
Other defects	3	5	1	—
Totals	25	23*	4	3

* Defects remedied include outstanding defects from previous year.

Summary of legislation under which action was taken to bring food premises into compliance

Notices issued under the various Acts and Regulations where breaches were discovered by Food and Drugs Inspectors during the year:—

TABLE B 50

Type of Business	Public Health (Prevention of Contamination of Food) Regu- lations (N.I.) 1948	Shops Act (N.I.) 1946	Public Health (Ireland) Acts 1878-1962	Belfast Corporation Acts 1845 to 1956	Bye- Laws	Totals
Butchers	13	4	14	2	1	34
Cafes, restaurants, etc.	5	3	7	1	—	16
Confectioners	—	1	14	—	1	16
Fish	2	1	1	—	1	5
Fish and chip shops	3	—	2	—	—	5
Fruit	7	1	10	2	—	20
Grocers	9	1	25	1	3	39
Licensed premises	8	4	9	—	1	22
Pastry shops	2	—	—	—	—	2
Provisions	—	—	1	—	—	1
Totals	49	15	83	6	7	160

PESTS CONTROL

Rodent Control

The importance of adequate rodent control needs no emphasis for it is recognised that the presence of a large rat and mouse population in the City is a potential danger to health. In addition, the financial and material loss occasioned by rats, by destruction and damage of essential food, other valuable goods, buildings and installations are also important factors and regard must always be given to the possibility of food contamination. During the year there was no change in legislation affecting rodent control. The primary responsibility for taking such steps as may be necessary and reasonably practicable for the destruction of rats and mice in or on any land, and for preventing such land from becoming infested, is still that of the occupier. ("Land" is defined to include any building or erection on land and any cellar, sewer, drain or culvert in or under land).

To maintain control of infestations in surface properties, systematic surveys of business premises are carried out by the Department in order that the presence of rats and mice may be revealed and dealt with. These surveys are constant reminders to occupiers that a section of the Department exists to advise or assist in dealing with rodent problems. Measures adopted depend upon the extent and degree of infestation. The following classification is a guide in determining the degree of infestation:—

Minor This applies to an infestation of fewer than 20 rats and may occur in dwelling houses, small shops and isolated business premises.

Major This class of infestation, including from 20 to 200 rats, may occur in large factories, blocks of warehouses and blocks of buildings in which there are restaurants and premises where food is prepared or stored.

Reservoir These are infestations of over 200 rats which exist in City and town sewers, refuse tips and at refuse destructors. Although maintenance treatment of sewers has been carried out for many years, rats still affect premises in their vicinity, for example, where a breakdown occurs in a private drainage system or where defects occur in public sewers.

In all cases of infestation it is essential to locate the source, otherwise the problem cannot be dealt with effectively. It may be impossible to effect a complete clearance of rats but it is possible to control them and reduce economic loss to a minimum. A systematic campaign must be carried on at all times by means of continuous surveys to ensure that effective measures are being taken to control and, if possible, eliminate infestations. Each complaint, whether it relates to rats or mice, is investigated. Recently, following a report of a heavy infestation of rats in a district of 390 prefabricated bungalows, an extensive investigation and baiting campaign revealed that 1.5% of the bungalows were infested by rats and 14% by mice. It was found that at some of the demolished bungalows, the

drains had not been properly sealed to prevent the egress of rats. At the request of the Estates Department the rats were eliminated and the occupiers advised on the destruction of the mice.

During the year the rodent control staff, surveyed 9,008 sites. In the investigation of complaints, a further 16,710 visits were made comprising operational visits and re-examination of buildings and lands. Of the 9,008 sites surveyed, 662 were found to be infested, details of which are shown in the statistical data. Of the 662 infestations of lands and buildings 352 have been or were at the end of the year being dealt with by the Department's Pest Officers.

Co-ordinated action by Public Health Inspectors and Pests Officers was taken where required in relation to preventive measures. Conditions likely to contribute to infestation were brought to the notice of the occupier of the building or land. Preventive measures and works of proofing were carried out as required during or immediately following disinfection. These measures included repair of defective drains, fixing metal plates to the bottoms of doors, replacing defective ventilators, "closing up" openings in walls and removal of unnecessary harbourage.

During the year no legal proceedings were instituted for non-compliance with notices served under the Rats & Mice (Destruction) Act.

Statistical details:—

Surveys of land and premises	..	..	..	..	25,718
Lands and premises found infested	..	..	..	..	662
Rat Infestation:—					
1. Food premises	..	..	..	..	67
2. Non-food premises	..	..	..	..	357
Mouse Infestation:—					
1. Food premises	..	..	..	..	62
2. Non-food premises	..	..	..	..	176
Premises treated by the Department	..	..	..	..	352
Poison campaigns carried out for occupiers who undertook to pay costs:—					
1. For rats	..	..	..	..	270
2. For mice	..	..	..	..	101
School buildings and meal kitchens treated for the Education Department	..	..	..	..	19
Poison campaigns carried out in school buildings and meal kitchens:—					
1. For rats	..	..	..	..	13
2. For mice	..	..	..	..	7
Premises cleared of rats and mice	..	..	..	..	293
Premises where the clearing process was not complete at the end of the year	..	..	..	..	59
Premises test baited	..	..	..	..	7,784
Premises wherein the occupier undertook to eliminate rats and mice on statutory or verbal notice under the Rats and Mice (Destruction) Act 1919:—					
1. For rats	..	..	..	..	141
2. For mice	..	..	..	..	130
Premises having no evidence of rats or mice at the time of survey but with Rodent Destruction firms on contract	..	..	..	..	102
Premises where rat proofing and other work was done to prevent re-infestation	..	..	..	..	41
Notices issued under the Rats and Mice (Destruction) Act 1919	..	..	..	..	38
Rat destruction campaigns at Corporation tipping grounds	..	..	..	..	15

Rats found in sewers are the same species as those found in buildings and in the countryside—the common or brown rat (*rattus norvegicus*). Sewer rats use the sewers as a means of movement from one site to another through defects in sewers and drains. There is a definite link between sewer and surface infestations and the work of rat destruction on the surface and in the sewers must be closely co-ordinated in order to maintain a high standard of rodent control in the City. With the object of reducing rat infestation of buildings and lands that may have its source in sewers, maintenance treatments for the destruction of rats in sewers were applied during the year.

There is no doubt that the continual drive during recent years to destroy rats in the sewers is accomplishing its purpose by reducing the breeding and migration of rats from sewers and drains into buildings. A probelm yet to be completely solved is the destruction of rats having a plentiful supply of food and good harbourage in sewers, where manholes are a long distance apart. The City Surveyor's co-operation in this important aspect of rodent control is gratefully acknowledged.

Rat destructions carried out in the sewerage system	..	..	211
Sewer manholes treated	..	..	5,687
Pre-baits laid	..	..	18,743
Pre-baits taken	..	..	9,910
Poison baits laid	..	..	5,377
Poison baits taken	..	..	5,151

Mosquito Control

The seasonal work of mosquito control within the City boundary began on the 21st April and continued until the 2nd October, 1964. Preliminary surveys of the potential breeding grounds were carried out prior to control measures being applied, consisting of insecticidal fogging with waste transformer oil provided free of cost by the Electricity Department, with D.D.T. added, also spraying with a larvicultural solution. Treatment was carried out at the following sites:—

Bog Meadows Here moderate breeding existed at the beginning of the season, but control of the area was well maintained from several operational points, especially from the verge of the M1 motorway.

Laganvalley Mosquito larvae were found in the Annadale and Malone areas. The larvicultural treatment was effective in curtailing the breeding. Nevertheless, in the Newforge district man-biting mosquitoes—*theobaldia annuesta*—persisted. There is the possibility that the mosquitoes came from areas outside the City.

Castlereagh and Orangefield areas The areas adjoining the Knock and Loop rivers were treated as potential breeding grounds, although only a few mosquito larvae were found. These were found to be a non man-biting type—*Culex Pipiens*. It is possible that there were some man-biting mosquitoes in the area.

Holywood Road area The level of almost all the fields in this area has been raised by the dumping of household refuse and other debris which has eliminated the flooding of this marsh land during winter. Attention was only required for the drainage ditches, to which control measures were applied.

Duncrue Street area Most of the area of slob land where mosquitoes could breed has been filled in. There now exist a few isolated "pockets" where mosquito larvae have been found and in very dry weather these places dry out. When and where necessary they were treated.

Shore Road and Greencastle The ditches adjoining the U.T.A. railway from Downview Bungalows to Greencastle were treated on several occasions during the season. Only slight mosquito breeding was found.

Other places which were surveyed and to which control measures were applied were:—Belfast Castle Grounds; the drained pond at Killeen; Fortwilliam Park; the Water Works Antrim Road, and the Harbour Estate adjoining the U.T.A. railway and Airport area.

Garden plots have been greatly reduced in the City, most of the land having been utilized for building purposes. Plots at Annadale Embankment, Beersbridge Road, Cairnburn Road, Station Road and Westland Road were visited and water containers with mosquito larvae were treated with

larvicide. In general satisfactory control was exercised at all the known breeding grounds within the City. During the season very few mosquito complaints were received. In some cases an investigation revealed that the complaint related to midges and not mosquitoes.

During the season the following inspections were made, treatments carried out and materials used:—

Surveys of mosquito areas	173
Areas treated with larvicide	138
Miles run by vehicle	584
Gallons of waste transformer oil used	820
Gallons of larvicide used	86
Gallons of paraffin used	39
Gallons of petrol used by vehicle and Tifa machine	104

Other Insect Pests

During the year complaints regarding various kinds of insects were investigated and complainants advised on methods of dealing with their problems. Pests Officers applied treatment in special circumstances on request from Public Health Inspectors and Health and Welfare visitors. The treatment of rag stores continued, the cost being paid by the firms. In the past, piggeries, stabling and cattle yards and tipping grounds contributed in no small measure to the fly problem. The removal of manure helped a little but there were always "pockets" where flies can breed. In 1953—year before additional fly control measures were put into operation especially in relation to piggeries, stabling and cattle yards, and later tipping grounds—the fly problem caused much concern. There were 614 reported cases of Gastritis, Enteritis and Colitis in children under 2 years which caused 70 deaths. In 1963, after nine years of control measures at stabling and cattle yards and tipping grounds, (pig keeping had virtually ceased in the City due to the piggery by-laws) the house-fly problem had considerably diminished. The number of notifications of Gastro Enteritis was 324 and the number of deaths of children under 2 years from this cause was 5. There is, therefore, a strong possibility that intensive fly control measures helped considerably in reducing the incidence of Gastro Enteritis and other food-borne infections. Although there has been this reduction in the fly population the house-fly still remains a formidable problem. Aerosol sprays for winged insects are simple to use and effective in destroying flies in the home and food premises. "Pockets" of flies can easily be dealt with by one or two short bursts, which are sufficient to render the atmosphere lethal to flies.

Inspections of premises on complaint of insects	3,053
Premises found to be infested:—	
(a) Bed-bugs	43
(b) Cockroaches and steam flies	157
(c) Fleas	67
(d) Flies	72
(e) Other insects	92
Premises treated with insecticide	548
Stables and cattle yards—treatments	303
Rag stores—treatments	95
Corporation tipping grounds	61
Visits to food shops, etc.	619

The Hydrogen Cyanide (Fumigation) Act 1938 and The Hydrogen Cyanide (Fumigation of Buildings) Regulations (Northern Ireland) 1952

There were no notification of intention to fumigate buildings with hydrogen cyanide to destroy mill pests.

Methyl Bromide Fumigations

Number of notifications of fumigations of tobacco leaf with methyl bromide
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The Lister-Todd Insecticidal Fog Applicator

In addition to mosquito control, etc., the T.I.F.A. machine was used for testing drains and sewers which could not be tested by the hand-operated machine and in cases where the smoke test revealed no defects due to the impossibility of obtaining the necessary pressure for a satisfactory test.

Sewer and drain tests by Tifa machine on complaint of offensive smell and rats	97
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Disinfection and Disinfestation

The duties associated with infectious disease and disinfection continued as usual but the reduction in the incidence of infectious disease during the past years has led to fewer demands in the disinfection side of this section. This reduction has been more than counterbalanced by an increase in other functions. The principal duties for which the section is responsible are:—

- Investigation of cases for infectious disease
- Disinfection of infectious premises
- Disinfestation treatment of verminous premises
- Disinfection and disinfestation station
- Delivery and collection of home nursing equipment
- Transport for Food and Port Health Inspectors
- Attendance on volumetric instruments for air pollution
- Miscellaneous transport services (stores, clinics and schools)
- Drain testing

Four motor vehicles (excluding a Landrover) are engaged in the work of the Department. During the year these vehicles covered 34,985 miles and used 1,640 gallons of petrol.

Visits to premises where infectious disease occurred	1,174
Infectious premises disinfected	399
Verminous premises disinfested	74

During the year the Disinfecting and Cleansing Station dealt with the following items and persons:

Infectious articles disinfected by steam	1,240
Articles disinfected by formalin	410
Infectious articles destroyed on request	88
Public library books withdrawn from circulation	167
Private library books withdrawn from circulation and disinfected ..	11
Persons bathed and disinfected	36
Articles of home nursing equipment cleansed and disinfected ..	2,458

The Cleansing Clinic at Laganbank Road did the following work:—

Verminous persons cleansed	182
Treatment for scabies	
(a) First treatments	182
(b) Subsequent treatments	213
Articles disinfected and disinfested	2,812

Table showing the number of persons treated for scabies at the Cleansing Clinic over the past five years:—

TABLE B 51

Year	First Treatment	Subsequent Treatment	Total Treatments
1960	123	125	248
1961	324	340	664
1962	156	131	287
1963	126	170	296
1964	182	213	395

Details of legal proceedings instituted and fines imposed

TABLE B 52

Act	Offences	Summons	Orders	Fines	Costs
P.H. (I) Acts 1878 to 1962	(i) Failed to abate public health nuisances (ii) Disobedience of Magistrates Orders to abate P.H. nuisances (iii) Water closets not provided with sufficient water for flushing purposes (iv) Water closets not provided with sufficient water for flushing purposes: continuing offences (v) Failed to cleanse and/or repair drains	907 24 35 4 2	129 — — — —	£148 0 0 86 16 0 73 0 0 13 3 0 —	£54 16 0 6 13 0 9 13 0 0 16 6 —
Housing Acts 1890 to 1963	Using tent/caravan for human habitation	8	—	27 0 0	4 5 0
Belfast Corporation Acts 1845 to 1946	(i) Prohibition of the sale of Meat until after inspection (ii) Failed to provide a bin (iii) Failed to register premises for vendor of fried fish or fried potatoes (By-laws)	2 2 1	— — —	3 0 0 — 2 0 0	0 14 0 — 0 5 6
Shops Act (N.I.) 1946	Failed to make suitable provision for sufficiently lighting and ventilating sanitary convenience	1	—	2 0 0	0 7 0
Preservatives in Food Regulations (N.I. 1962)	(i) Sold food containing prohibited preservative (ii) Sold food containing preservative in excess of amount allowed	10 10	— —	45 0 0 45 0 0	23 13 9 23 3 2
Public Health (Prevention of Contamination of Food) Regulations (Northern Ireland) 1948	(i) Food prepared or stored in a room in which there was an inlet to a drain (ii) Used as a living room a room in which food was stored (iii) Failed to take all reasonable precautions to prevent contamination of food (iv) Failed to prevent contamination of food by insects, dust, dirt, animals or otherwise (v) Failed to secure cleanliness of premises	1 3 6 2 1	— — — — —	5 0 0 20 0 0 56 0 0 7 0 0 75 0 0	0 7 0 0 18 0 1 13 0 0 11 0 0 5 6
Food Standards (Butter and Margarine) Regulations (N.I.) 1960 Regulation 6	Sold margarine as butter	1	—	2 0 0	2 7 0
Food and Drugs Act (N.I.) 1958	(i) Sold or exposed for sale food unfit for human consumption (ii) Sold to the prejudice of the purchaser (iii) Obstructed an officer duly employed by the complainants (iv) Failed to register premises for sale of ice-cream	22 2 1 1	— — — —	67 0 0 5 0 0 3 0 0 5 0 0	5 7 0 0 11 0 0 8 2 0 5 6
Ice-Cream (Composition Heat Treatment, Labelling, etc.), Regulations (Northern Ireland) 1961	Sold ice-cream which was deficient in fat	2	—	6 0 0	2 11 0

Conclusion

I gratefully acknowledge all the help and advice I have received from the Medical Officer of Health and his Deputy.

To the Administrative Officer and his clerical staff I record my appreciation of the teamwork which is most essential to the successful functioning of this Section of the Department and to the Inspectorate for their loyalty and ready willingness to answer any calls I made upon them.

W. JENKINS, M.R.S.H., M.A.P.H.I.,

Chief Public Health Inspector.

RAINFALL IN INCHES

TABLE B 53

Month	1956	1957	1958	1959	1960	1961	1962	1963	1964
January	4.19	4.85	4.78	2.52	3.75	4.40	3.67	1.81	2.01
February	1.31	2.52	6.49	1.40	2.53	4.03	2.06	2.91	0.67
March	1.77	3.78	2.19	2.89	2.55	1.40	2.02	3.61	3.88
April	1.50	2.04	2.07	2.72	2.93	4.46	2.23	2.54	1.83
May	1.85	2.95	3.88	1.94	2.19	3.90	2.24	3.37	2.25
June	3.27	1.20	7.83	2.64	2.55	2.04	1.59	4.34	2.79
July	3.77	4.39	4.79	4.36	5.31	1.88	2.25	3.01	1.69
August	6.69	3.93	4.66	0.87	7.28	3.12	5.32	3.75	3.65
September	4.19	5.93	5.46	1.53	2.83	4.34	6.08	2.46	4.16
October	3.15	4.55	2.09	3.28	5.38	4.28	2.24	4.76	5.61
November	2.12	2.10	2.35	3.43	5.04	2.76	4.16	7.38	3.50
December	6.10	5.53	6.13	6.07	2.36	3.53	4.00	0.86	5.65
	39.91	43.77	52.72	33.65	44.70	40.14	37.86	40.80	37.69

REPORT OF THE CITY VETERINARIAN FOR THE YEAR 1964

Total Slaughter

The total number of animals (261,787) slaughtered at the Belfast Abattoir in 1964 showed a decrease of 18,847 compared with 1963.

Cattle showed a decrease of 2,660, sheep and lambs a decrease of 17,643, pigs a decrease of 440, while goats were increased by 1,896.

The smaller throughput in 1964 represented current difficulties in the Meat trade which appear to be world-wide at present, mainly occasioned by a shortage of meat-producing animals. Reduced imports into the United Kingdom from traditional sources also added to the problem so far as Northern Ireland was concerned.

Number and Description of animals slaughtered each month

TABLE C 1

	Cows	Heifers	Bulls	Bullocks	Calves	Sheep and Lambs	Goats	Pigs
January	176	90	1	5,317	43	15,159	214	278
February	86	32	13	4,814	63	11,208	214	289
March	94	54	3	4,708	78	10,390	421	237
April	55	36	6	5,477	44	14,047	339	351
May	56	34	3	4,110	28	15,056	260	270
June	112	70	3	4,140	20	20,400	266	235
July	55	52	—	4,243	19	16,828	221	230
August	30	73	2	4,478	26	16,796	181	265
September	146	87	—	4,857	38	18,298	185	406
October	93	95	3	5,053	209	18,058	231	566
November	78	132	1	5,309	102	20,426	200	856
December	95	130	—	5,161	88	17,131	211	633
Totals	1,076	885	35	57,667	768	193,797	2,943	4,616
Total Cattle	60,431							

Grand Total 261,787

Carcase Condemnations

The total number of carcases condemned in 1964 was 950 compared with a total of 692 in 1963, an increase of 258, representing a percentage of 0.36 of the total slaughter. The highest loss, 2.68%, was in goats, with pig condemnations also high at 2.36%.

Total Seizures from all causes

TABLE C 2

Class	1964	1963	Percentage of total kill
Cattle	75	85	0.12
Sheep and Lambs	687	418	0.35
Pigs	109	146	2.36
Goats	79	43	2.68
Totals	950	692	0.36

As far as individual disease conditions were concerned the greatest losses were due to generalised oedema, followed by pyaemia, decomposition, fever, bruising and abscesses, as will be evident from Table C3. Pyaemia and localised abscesses continue to be major causes of condemnation in pigmeat and are currently causes for concern, even leading to research work as to the reason for their prevalence. Total and partial seizure of carcase meat in all species amounted to 69,528 lbs. or approximately 31 tons.

Reasons for Total Seizure

TABLE C 3

Cause	Cattle	Sheep	Pigs	Goats	Total
Abscess	—	5	10	—	15
Anaemia	—	10	—	—	10
Arthritis	—	—	2	—	2
Carcinoma	—	—	—	—	—
Cysticercus Bovis	1	—	—	—	1
Decomposed	4	24	1	1	30
Enteritis	1	—	—	—	1
Fevered	6	12	8	—	26
Fibrosis	—	1	—	—	1
Gangrene	—	4	—	—	4
Immature	14	—	—	—	14
Injured	5	7	3	1	16
Joint Ill	4	—	—	—	4
Jaundice	—	—	1	—	1
Necrosis	—	1	—	—	1
Neoplasms	—	3	1	—	4
Oedema	25	588	5	107	725
Pyaemia	2	—	30	—	32
Redwater	—	—	1	—	1
Septicaemia	—	3	8	—	11
Septic Mastitis	2	3	—	—	5
Septic Metritis	6	8	—	—	14
Septic Peritonitis	1	4	4	—	9
Septic Pleurisy	1	6	—	—	7
Septic Pneumonia	1	7	3	—	11
Swine Erysipelas	—	—	1	—	1
Tuberculosis	1	—	—	—	1
Muscle Degeneration	1	—	—	—	1
Totals	75	686	78	109	948

Tuberculosis now only occurs as a very small percentage, only one carcase being totally condemned because of this condition during 1964 as against three in 1963. While diseases like this have become rare, however, the picture of degenerative conditions such as generalised oedema especially in sheep and goats is not such a pleasant one. Neither is the situation with regard to bovine cysticercosis which at present causes a very serious loss to the meat industry in Belfast, as will be evidenced by the following table.

Bovine Cysticercosis

TABLE C 4

Month	Cases detected	Total Slaughter (Cattle)	Percentage incidence
January	253	5,627	4.50
February	235	5,008	4.69
March	192	4,937	3.89
April	108	5,618	1.92
May	184	4,231	4.35
June	115	4,345	2.65
July	255	4,369	5.84
August	210	4,609	4.56
September	385	5,128	7.51
October	295	5,453	5.41
November	389	5,632	6.91
December	349	5,474	6.38
Totals	2,970	60,431	4.90

The overall percentage of 4.90, the highest ever recorded at Belfast Abattoir, represents an increase of 0.90% compared with 1963 and, since approximately one quarter of the recorded cases were viable ones requiring refrigeration, means a serious loss to the meat trade. The fact that there would appear to be an actual increased incidence of this condition can only give cause for concern. One generalised case of *C. bovis* was recorded during 1964.

Food Hygiene (General) Regulations (N.I.) 1964

These regulations, made by the Ministry of Health and Social Services under sections 73 and 68 of the Food and Drugs Act (N.I.) 1958, provide for the hygienic handling of food at premises, vehicles and stalls, the construction and maintenance of premises, stalls, vehicles, etc., where food is handled and the hygienic transport and carrying of meat and offal. Although they do not in general apply to abattoirs, Part VI, relating to the transport of meat, is very much concerned with abattoir operations. The regulations came into force on January 1965, while the part relating to transport is scheduled to come into operation on 1st July, 1965.

In anticipation of this Order, many retail meat traders have taken steps to improve their transport standards and it is to be hoped that in the near future all meat for human consumption will be conveyed in hygienic closed vehicles. Such a desirable situation will be even more necessary when the new City of Belfast Meat Plant, due to open early in 1968, commences operations, since all meat and offal will then be received by retail butchers in a chilled condition.

Agricultural Produce (Meat Shipping) Regulations 1964

These regulations, which came into force on the 27th April, 1964 and made by the Ministry of Agriculture, set out the requirements for and the conditions governing the registration of premises from which meat is shipped from Northern Ireland. Since they are designed to meet the requirements of importing countries in Europe, U.S.A. and elsewhere, they contain high standards for construction of meat plants, admission of animals, slaughtering techniques, hygienic practices, transportation, meat chilling standards, etc. Having carried out certain improvements the Belfast Abattoir has been registered under these regulations and the export of meat and offal, a valuable addition to its throughput, continues to Great Britain, Europe and as far afield as Australia.

Mass Radiography of Abattoir personnel

A further visit was made to the Belfast Abattoir in September, 1964 by the Mass Radiography Service when a large number of employees were x-rayed. Besides carrying out the valuable function of detecting pulmonary tuberculosis lesions, it is considered that this service contributes greatly to the health education of persons employed in the meat industry. We desire to thank the Director and staff of the Mass Radiography Service for all their help and assistance.

Interdepartmental Working Party on Cysticercus Bovis

Reference has already been made in this Report to the high incidence of bovine cysticercosis encountered on meat inspection. A Committee was set up under section 67 of the Food and Drugs Act (N.I.) 1958, to investigate the problem and held its first meeting on 1st December, 1964. All aspects of bovine cysticercosis are being examined by this Committee of 12 members, of which the City Veterinarian is one. It is hoped that ways and means can be devised whereby *C. bovis* can be much reduced in incidence.

New City of Belfast Meat Plant

The basic foundation work for the City's new Meat Plant on the site at Duncrue Street was commenced. When completed early in 1968 it is confidently expected that it will be the most modern of its type in the world. In order to glean as much information as possible about this important venture a visit was made by a Corporation deputation in September to Denmark, Germany and Sweden.

Institute of Meat

A Northern Ireland branch of the Institute of Meat was formed in June 1964 and has held several meetings. Classes for craftsmen in the meat trade have been organised at the Belfast College of Technology. These steps will undoubtedly serve to raise the standards of education of meat trade personnel.

J. F. GRACEY, Ph.D., B.Agr., M.R.C.V.S., D.V.S.M.

City Veterinarian.

**REPORT OF SENIOR MEDICAL OFFICER, MATERNITY AND CHILD HEALTH DIVISION, FOR
THE YEAR 1964**

Notification of Births Act

The total number of births notified as occurring in the area during the year was 11,086. Of these 5,713 were males and 5,372 were females and one was sex unknown (stillborn). Included in this total were 257 stillbirths.

TABLE D 1

Births occurring in Hospitals	8,866
Private nursing homes	199
Other Institutions	100
Home	1,653
Home (Hosp. district cases)	268
Total	11,086

Infant Mortality

During the year, 266 children died under the age of 12 months giving an infant mortality rate of 31. The rate for the previous year was 29.

Neonatal and Perinatal Mortality

Deaths occurring during the first month of life numbered 175 giving a neonatal mortality rate for the year of 20. The rate for the previous year was 19. The perinatal rate, i.e. stillbirths and deaths during the first week per 1,000 total births (live and still), was 42 against 36 for the previous year.

Maternal Mortality

The number of women who died from pregnancy, childbirth and the puerperal state during the year was 3 giving a maternal mortality rate of 0.34 per 1,000 live births. The rate for the previous year was 0.33. Table D13 shows the Maternal Mortality per 1,000 live births analysed according to the cause of death.

Health Visiting

58 Health Visitors were employed at the end of the year. The main part of their work continues to be the visitation and supervision of the health of infants and young children, but an increasing amount of time is spent on other duties, such as the after-care of patients discharged from hospital, supervision of special diets and the use of medical equipment loaned by the department. All of them undertake the visitation of tuberculosis and chest cases in co-operation with the Central Chest Clinic. A number with special training devote part of their time to the after-care of mental cases. They visit the mental hospitals and work with the Psychiatric Social Workers, others attend sessions at the mental day hospitals.

One Health Visitor is attached to a group practice and undertakes all the health visiting duties connected with the practice. The number carrying out liaison duties with general practitioners continues to grow and the contacts thus formed are most helpful in resolving many varied problems. The long established health visiting hospital liaison also continues. One Health Visitor's time is allocated entirely to diabetic work. She attends the metabolic unit in the hospital and visits the patients in their own homes.

The Health Visitors assist the Welfare Department in the administration of the Home Help Scheme as far as expectant mothers and mothers of young children are concerned, and close contact is maintained with that Department on various aspects of district work. A large part of the Health Visitors' time is spent on domiciliary health education work and on group teaching. Subjects such as mothercraft, prevention of home accidents, nutrition, food hygiene, personal hygiene, care of the aged at home, care of the feet, dental care, etc., are taught in the course of normal visitation or to selected groups.

A number had the opportunity of attending refresher courses and conferences, and all continued to assist in research projects.

Visits paid during the year were as follows:—

- (1) To expectant mothers: First visits, 1,973; Re-visits, 2,849; Total 4,822.
- (2) To children under one year of age: First visits, 8,526; Re-visits, 54,249; Total 62,775.
- (3) To children between 1 and 5 years: 83,429.
- (4) To tuberculosis cases, 6,444.

Ante-Natal Clinics

As the great majority of expectant mothers attending the Ante-Natal Clinics make arrangements through the clinics for their confinement in hospital the Clinic Medical Officer maintains close contact with the hospitals. At the Royal Maternity Hospital she also assists at one of the Ante-Natal sessions, and is a member of the Honorary Medical Staff. Specimens of blood are taken for Group, Rh factor, Wasserman, etc., and arrangements are in operation whereby private medical practitioners can refer their cases to the clinics for these tests. Some medical practitioners also refer abnormal cases for a second opinion. Instruction in Analgesia and in relaxation has been continued in combination with a special series of Mothercraft talks. These are open to all ante-natal cases irrespective of whether they are attending for ante-natal supervision or not.

Clinics and Attendances

TABLE D 2

	1st Visits	Re-Visits
Mount Street	49	331
Susan Street, Church Hall	39	305
Mountcollyer Street	55	267
Spier's Place, Shankill Road	78	762
Ariel Street	42	335
Cupar Street	138	1,115
	401	3,115

2,614 Blood Tests were carried out during the year.

Child Health Centres

The number of sessions provided at the end of the year increased to 39 per week—only 16 however were in buildings owned by the Health Authority, the other 23 being in halls, etc., rented on a sessional basis. As there is no alternative accommodation available in some areas a number of sessions continue to be held in very unsuitable premises.

A weekly session was started in the new Health Centre opened by the General Health Services Board on the Ormeau Road. This should help to bring the work into closer association with general medical practice in the area. A Clinic is urgently needed in this district, and a site has been acquired for a new one. The increase in the numbers attending the Ballymurphy Clinic also necessitated an additional session.

The educational aspect of the work was kept well to the fore and special stress was again placed on the prevention of accidents. The members of the Voluntary Workers' Association continued their help in the weighing of the babies and arranging social functions for the mothers, and our thanks are again due to them for this valuable assistance in our work.

Centres and Attendances

TABLE D 3

		Under 2 years	Over 2 years
Highfield	(Monday)	1,481	646
York Street	"	2,478	961
Ariel Street	"	2,155	650
Bloomfield	"	4,762	1,309
Cupar Street	"	3,225	1,496
Donegall Road	"	3,350	594
Knock	"	2,213	179
Ormeau Road	"	100	34
	(opened Nov., 1964)		
Glenard	(Tuesday)	3,594	988
Havelock Place	"	2,724	718
Donegall Road	"	2,592	608
Cupar Street	"	1,937	609
Mount Street	"	3,100	990
Ariel Street	"	2,500	243
Ballymurphy	"	64	60
	(opened Oct., 1964)		
Avoca Street	(Wednesday)	2,515	844
Cupar Street	"	2,526	921
Ligoniel	"	3,740	2,030
Seaview	"	4,181	1,565
Windsor	"	2,673	961
Mount Street	"	3,022	1,095
Palmerston Road	"	1,583	459
Susan Street	"	2,634	1,298
Avoca Street	(Thursday)	2,213	800
Kimberley Street	"	3,515	1,120
Greencastle	"	223	84
	(re-opened Nov., 1964)		
Mountcollyer	"	2,573	629
Spier's Place	"	2,372	259
Stranmillis	"	2,987	689
Susan Street	"	3,306	865
Mount Street	"	3,536	1,183
Malone	(Friday)	967	848
Ariel Street	"	3,265	883
Cupar Street	"	2,326	668
Joanmount	"	2,097	1,290
Spier's Place	"	2,278	570
Strandtown	"	4,141	997
Mount Street	"	2,357	1,029
Ballymurphy	"	2,299	747
Total Attendances		99,604	31,919

Mother and Baby Homes

(Ante and Post-Natal Hostels)

TABLE D 4

Name and address of Home or Hostel	NUMBER OF BEDS						Average length of stay	
	Ante-natal	Post-natal	Labour	Isolation	Maternity (excluding labour and isolation)	Cots	Ante-natal	Post-natal
(a) Hopedene	3	11	—	—	—	11	6-8 weeks	6-9 weeks
(b) Thorndale	9	4	2	1	25	16	6-7 weeks	10 weeks

The total number of City cases admitted during the year was 31.

These hostels are in receipt of a grant from the Health Committee.

Residential Nurseries

TABLE D 5

Name and address of Nursery	Whether long stay or short stay	Number of beds provided at the end of year				
		Aged 0-9 mths.	10 mth.-2 years	Aged 2-5	Girls over 5	Boys over 5
Glendhu Hostel Holywood Road (A voluntary Hostel in receipt of a grant from the Health Committee).	Short Stay	6	4	3	16	21

50 children resident in Belfast were admitted to the Hostel during the year.

Communicable Diseases

TABLE D 6

	(1) Ophthalmia Neonatorum		(2) Pemphigus Neonatorum		(3) Puerperal fever		(4) Puerperal pyrexia	
	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements	Dom. confinements	Instit. confinements
Number of cases notified during year	—	—	—	—	—	—	—	16
Number of cases visited by officers of the Local Authority	—	—	—	—	—	—	—	16
Number of cases in which Home Nursing provided	—	—	—	—	—	—	—	—
Number of cases removed to hospital	—	—	—	—	—	—	—	—

Midwives

TABLE D 7

	Domiciliary midwives	No. in inst. other than Hospitals	Midwives in hospitals	Midwives in nursing homes	Total
Total number of Midwives notifying their intention to practice during the year in the area of the Local Supervising Authority	55	16	225	9	305

Number of cases in which medical aid was summoned by a midwife during the year under Section 34 of the Nurses and Midwives Act, (Northern Ireland), 1959.

Nil

Domiciliary Midwives

25 midwives were employed on a salaried and 10 on a fee-per-case basis. Progress continues to be slow in recruiting sufficient midwives to enable the service to be placed entirely on a whole-time salaried basis. Two hostels are in operation, one in Springfield Road and the other in Templemore Avenue. Both hostels provide for a number of resident pupil midwives. A self contained flat is incorporated in the Child Health Clinic at Ballymurphy for 2 midwives. The Health Committee also contributes a proportion of the expenditure of two hostels for the training of pupil midwives in conjunction with the Belfast City and Royal Maternity Hospitals.

Allowances to cover uniform, laundry and travelling are granted, the uniform being that laid down by the Joint Nursing and Midwives Council. Equipment is issued on loan, and all drugs, dressings, etc., in use are supplied to the midwives. Special cots, etc., for the care of premature babies are available. The trend however is for these babies to be admitted to the special nurseries attached to the two large maternity hospitals in the City. Refresher courses are arranged from time to time.

The midwives attended a total of 2,181 domiciliary cases during the year.

Number of midwives suspended from practice during the year in order to prevent the spread of infection—Nil.

Maternity Medical Services

General Medical Practitioners agreeing to provide maternity medical services in domiciliary cases are enrolled on a panel maintained in the department and are paid on a fee-per-case basis. Both the doctor and the midwife are paid by the Health Committee.

The following is a summary of the work carried out under the scheme by Medical Practitioners during the year:—

TABLE D 8

Domiciliary confinements at which General Practitioner attended	2,229
G.P. Maternity Hospital confinements at which General Practitioner attended	1,008
Women confined at home who were examined ante-natally	3,214
Ante-natal examinations made of women confined at home	27,905
Women referred to institutions for confinement who were examined ante-natally	1,777
Ante-natal examinations made of women confined in institutions	11,794
Final pelvic examinations made of women confined at home	2,773
Final pelvic examinations made of women confined in institutions	985
Cases of abortion attended	711
Anaesthetics given by second practitioner	19

Registration of Nursing Homes

TABLE D 9

	Number of Homes	Number of beds provided for:—		
		Maternity	Dual purposes	Total
Homes first registered during the year	—	—	—	—
Homes on the register at the end of the year	7	42	33	75

Action during 1963 :

Number of applications for registration refused	..	..	..	—
Number of exemptions granted	..	..	..	—
Number of exemptions withdrawn	..	..	..	—
Number of registrations cancelled	..	..	..	—
Number of appeals by aggrieved persons to a Court of Summary Jurisdiction	..	..	..	—
Number of cases in which fines were imposed	..	..	..	—
Number of inspections	..	..	..	33
Number of registered homes not inspected	..	..	..	—

The inspections during the year were made by the Clinic Medical Officer, the Superintendent Nursing Officer, and the Area Superintendent Health Visitors.

Deaths and Death Rates per 1,000 births of Infants under one year associated with prematurity and, in the post-natal period, associated with diarrhoea and enteritis, pneumonia, broncho-pneumonia, and bronchitis

TABLE D 10

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Prematurity	78	9.62	53	6.45	91	10.8	85	10.3	90	10.8
Diarrhoea and enteritis	29	3.58	.8	0.97	10	1.2	13	1.6	12	1.4
Pneumonia, broncho-pneumonia and bronchitis	35	4.32	28	3.41	26	3.1	45	5.4	34	4.1

Infant Mortality and Rates per 1,000 births by causes and sex

TABLE D 11

Causes of death	Under 1 month				1-11 months			Total under 1 year	
	Males	Females	Total	Rate	Males	Females	Total	No.	Rate
Tuberculosis of respiratory system	—	—	—	—	—	—	—	—	—
Tuberculosis, other forms	—	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—	—
Scarlet fever and streptococcal sore throat	—	—	—	—	—	—	—	—	—
Syphilis and its sequelae	—	—	—	—	—	—	—	—	—
Typhoid	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—
Whooping cough	—	—	—	—	—	—	—	1	1
Meningococcal infections	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—
Other infectious and parasitic diseases	—	—	—	—	—	—	—	—	—
Malignant neoplasms including neoplasms of lymphatic and haematopoietic tissues:	—	—	—	—	—	—	—	—	—
(a) cancer	—	—	—	—	1	—	—	1	0.11
(b) Hodgkins disease and Leukaemia	—	—	—	—	—	—	—	—	—
Benign and unspecified neoplasms	—	—	—	—	—	—	—	—	—
Diabetes	—	—	—	—	—	—	—	—	—
Vascular lesions affecting central nervous system	—	—	—	—	—	—	1	1	1
Non-meningococcal meningitis	—	—	—	—	2	—	—	2	0.23
Other diseases of heart	—	—	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	—	—	—	—
Pneumonia (excluding new born)	—	—	—	—	9	14	23	23	2.64
Bronchitis	—	—	—	—	4	—	—	4	0.46
Intestinal obstruction and hernia	2	1	3	—	—	—	—	3	0.34
Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the new born	—	—	—	—	2	6	8	8	0.92
Cirrhosis of liver	—	—	—	—	1	—	—	1	0.11
Nephritis and nephrosis	—	—	—	—	—	—	—	—	—
Congenital malformations	16	14	30	—	11	13	24	54	6.19
Birth injury, post natal asphyxia and atelectasis:	—	—	—	—	—	—	—	—	—
(a) with prematurity	28	15	43	—	—	—	—	43	4.93
(b) without prematurity	19	10	29	—	1	—	—	30	3.44
Infections of new born:	—	—	—	—	—	—	—	—	—
(a) with prematurity	1	—	1	—	—	—	—	1	0.11
(b) without prematurity	3	6	9	—	—	—	—	9	1.03
Other diseases peculiar to early infancy:	—	—	—	—	—	—	—	—	—
(a) with prematurity	31	19	50	—	—	—	—	50	5.73
(b) without prematurity	4	5	9	—	2	—	—	2	1.11
All other diseases	—	1	1	—	12	9	21	22	2.52
Accidents	—	—	—	—	—	—	—	1	0.11
Unknown causes	—	—	—	—	—	—	—	1	0.11
Homicide and operations of war	—	—	—	—	—	—	—	—	—

Infant Mortality (By Age Groups)

TABLE D 12

Sex	Under 1 day	1-6 days	1-3 weeks	1 month	2 months	3-5 months	6-11 months	Total	Deaths of Illegitimate children
Males	65	31	8	7	10	18	12	151	9
Females	42	21	8	6	7	16	15	115	4
Total	107	52	16	13	17	34	27	266	13

Maternal Mortality Rate per 1,000 live births according to cause of death

TABLE D 13

Cause of death	No. of deaths	Rate per 1,000 total births
1. Pulmonary Embolism due to pelvic vein thrombosis due to childbirth	1	0.11
2. Pulmonary aspiration of gastric contents associated with paralytic ileus within 3 days of confinement	1	0.11
3. Intra abdominal pregnancy due to rupture of left fallopian tube due to ectopic pregnancy	1	0.11

Infant and Neo-Natal Mortality Rates, 1885—1964

TABLE D 14

Year	Rate per 1,000 births		Year	Rate per 1,000 births	
	Infant	Neo-Natal		Infant	Neo-Natal
1885	170	—	1951	44	24
1890	162	—	1952	47	25
1895	169	—	1953	45	21
1900	152	—	1954	39	24
1905	136	—	1955	37	21
1910	143	—	1956	29	18
1915	137	—	1957	32	22
1920	132	—	1958	30	19
1925	104	—	1959	33	22
1930	78	—	1960	28	20
1935	112	—	1961	33	23
1940	122	40	1962	29	20
1945	84	40	1963	29	19
1950	49	25	1964	31	20

— indicates information not available

Home Nursing Service

The Home Nursing Staff consists of 1 Superintendent, 1 First Assistant Superintendent, 1 Second Assistant Superintendent and 50 Queen's Nurses, 2 State Registered Nurses and 2 State enrolled Nurses. There were 24 nurses in training during the year. 10 were Departmental candidates and 14 were County candidates. The training remains at a high standard and several of the candidates obtained credits in various subjects at the examination.

The total number of visits paid was 231,914 compared with 217,309 in 1963.

Sick room requisites such as Dunlopillo mattresses, air cushions, bed-rests, rubber sheeting, bed-pans, incontinent pads, etc., are sent out to patients on loan when required through the Medical Comforts depot. The use of sterile packs for the Nurses' Bags, introduced last year, has proved very beneficial. The Marie Curie Fund was utilised for obtaining extra facilities for cancer patients—bedding, clothing, extra nourishment, night sitters, etc.

Home Nursing Service
Statistics of Work Done, 1964

TABLE D 15

A. Number of Cases:—		
(i)	Brought forward from 1963	3,307
(ii)	New cases taken on during 1964	4,678
	Analysis of new cases:—	
	Tuberculosis	59
	Cancer	258
	Diabetes	82
	Gynaecological	71
	Pneumonia	17
	Surgical	809
	General medical	3,382
(iii)	Removed during 1964	3,060
	Cause of removal:—	
	Convalescent	1,589
	Died	375
	To hospital	610
	Other causes	486
	Remaining on books at end of 1964	4,925
B. Analysis of visits to all cases in 1964:—		
	Tuberculosis	4,260
	Cancer	15,721
	Diabetes	19,767
	Gynaecological	1,040
	Pneumonia	218
	Surgical	33,204
	General medical	157,704
	Total visits	231,914

After-Care

The Committee's scheme for dietetic assistance includes domiciliary as well as ex-hospital cases. Assistance is given for a period of six weeks during which time the National Assistance Board, to whom each case is referred, arranges for its continuance from central funds if necessary. The total number of cases dealt with was 963. Women over 60 and men over 65 excluded from the scheme are the entire responsibility of the National Assistance Board. Tuberculosis patients are supplied with one pint of milk daily on the recommendation of chest physicians. During the year 989 persons received milk under this scheme. Cases are reviewed periodically by the chest physician who recommends the continuation or cessation of supplies.

During the year 1,258 new issues of medical comforts were made and 1,130 persons returned loaned equipment. The number holding equipment at the end of the year was 1,202.

Chiropody

A scheme for providing chiropody treatment for the aged, handicapped persons, and expectant and nursing mothers was introduced in 1961. At the beginning one session was held weekly, but with the rapid growth of the work it was found necessary to increase the number of sessions, and also provide for domiciliary visits. At the end of 1964, 62 sessions were being held weekly.

A total of 3,510 persons received treatment. The number of treatments carried out was 11,905, 10,238 at clinics and 1,667 in patients' homes.

In conclusion I would like to express to the members of the Staff my sincere appreciation of the excellent manner in which they discharged their duties throughout the year.

H. A. WARNOCK, M.D., B.Sc., D.P.H.,

*Senior Medical Officer
Maternity and Child Health Division.*

REPORT OF THE SENIOR MEDICAL OFFICER, SCHOOL HEALTH DIVISION, FOR THE YEAR 1964

Belfast Grant-Aided Schools

The various types of grant-aided schools in the City and the number of pupils attending them are shown in Table E1. Comparison with 1963 shows two fewer county primary schools: McQuiston, St. Mary's Junior, and Crumlin Road Junior Schools were closed, and Fane Street after rebuilding became a secondary school; Edenbrooke Infants' and Edenbrooke Junior were opened. The county secondary schools increased by one with the opening of Somerdale Boys' and Fane St. Secondary Schools and the closing of Edenderry Secondary School. Voluntary primary schools were reduced by two with the closing of St. Mary's Christian Brothers' and St. Brendan's Schools; one new voluntary secondary school, St. Peter's Boys' was opened. Two day instruction centres run by the Special Care Service of the Northern Ireland Hospitals Authority are listed, since under the terms of Section 6 of the Health Services (Amendment) Act (N.I.), 1963 the School Health Service now carries out medical and dental inspection and treatment for children attending these centres.

At the end of the year the school population was 80,600 compared with 80,847 in 1963, and the total number of grant-aided schools was unchanged at 193. All pupils at these schools are examined by the School Health Service under the provisions of Section 42 of the Education Act (N.I.), 1947, as amended, excepting three who conduct their own schemes of medical and dental inspections and treatment under Section 42 (6).

Staff

One of our medical officers retired in April 1964 and this vacancy remained unfilled at the end of the year. The Northern Ireland Hospitals Authority continued to provide specialist services by secondment on a sessional basis. Ophthalmic specialists were seconded for sessions in the school clinics, but the number of sessions was insufficient to prevent unduly long waiting-lists. A paediatric consultant worked part time in our clinics and special schools and an orthopaedic surgeon at Fleming Fulton and Malcolm Sinclair Schools.

There were several changes in our speech therapy staff in 1964, but there remained three vacancies for most of the year. The Hospitals Authority were unable to meet any of their commitment of 11 sessions weekly which they normally provide for schools and school clinics. The Health Committee makes grants to suitable young women who wish to train as speech therapists, but applicants have been few. The grant covers tuition fees and various incidental expenses such as examination fees and there is a maintenance allowance equivalent to a Major Award Scholarship. There is no training school in Ireland, and candidates enrol at one of the five English or two Scottish schools; the course takes three years of full time study.

The staff of physiotherapists and occupational therapists was under strength by one or two throughout 1964, and several changes of personnel occurred.

The staff of health visitors remained complete throughout the year. Two school nurses were seconded to the Health Visitor's Training Course of the Royal College of Nursing and were replaced temporarily by nurses who will in turn be seconded in 1965.

School Medical Inspections

Table E2 lists the various medical inspections carried out in 1964. In addition to the examinations shown in this table all of the 4,185 handicapped pupils at special schools, on home tuition, or under school age were examined during the year, some of them several times. The results of these examinations are not included in the various tables of defects, but particulars of the children's handicaps are given in Tables E13 to E20.

The School Health Service (Amendment) Regulations (N.I.), 1963 modified the system of medical inspections to permit examination of children selected because of known or suspected disability rather than routine examination of all children at stated age groups. Interview may replace examination of school leavers, but routine examination of all entrants is still required. At three schools experiments made with various methods of selecting children for examination. Teachers, parents, health visitors, and medical officers all took part in this, and further experiments are proceeding. No interviews were carried out, but by the end of the year 160 children had been examined on a selective basis. As in the case of the handicapped pupils the results of these examinations are not included in the various tables of defects since these tables are intended to show the prevalence of certain problems in the child population as a

whole. It is intended to continue these examinations and to conduct leavers interviews throughout 1965 with modifications of the procedure in the light of experience. The opinions of teachers and medical staff about these developments are mixed, and the future pattern of medical inspections is yet to be settled.

Table E11 shows that 15,200 children were re-examined during the year for 18,785 defects noted at previous examinations; 3,184 of these defects were found to need further treatment, 5,671 were removed from the re-examination list as cured, and the remaining 9,930 were listed for further observation.

Table E4 shows a summary of the action found to be necessary by the examining doctor at routine medical inspections, and Table E3 shows the numbers of parents who were present at these inspections. The purpose of Table E4 is to distinguish between defects noted at medical inspections which are already receiving all necessary attention and those defects requiring some action to be initiated by the school doctor. In the latter category the total was 4,046.

Defects discovered at Routine Medical Inspections

Table E7 summarises the defects found at routine medical inspections in 1964. Most defects were found to occur with about the same prevalence as in 1963. Defective vision was noted in 283 per thousand children examined this year as compared with 298 in 1963. Table E8 (a) shows the visual acuity in each eye of the 17,102 children in whom it could be accurately assessed; of these children 1,388 wore glasses, and their acuity with glasses is shown in Table E8 (b). These tables show that although seriously defective vision is very common, most children's vision is greatly improved in at least one eye by the wearing of glasses. It is sometimes difficult to assess the visual acuity, and this year 156 children had to be deferred for re-examination because of such reasons as eye disease, immaturity or occlusion of an eye under treatment for a squint.

Table E9 shows the results of colour vision testing by the Ishihara method in 5,114 children in Groups III and IV; 4.3% of the boys and 0.1% of the girls examined had major defects of colour vision, and a further 3.9% of the boys and 0.8% of the girls had less marked defects. Abnormalities of colour vision have an important bearing on the children's future careers, and reports made by the school doctors to the Youth Employment Service on school leavers include this important item.

The average heights and weights of the boys and girls examined at routine inspections are shown in Table E5, and their nutritional state in Table E6.

Tuberculin Tests and B.C.G. Vaccinations

Table E10 shows the results of tuberculin testing by the Heaf multiple-puncture method at routine medical inspections. Part (a) of the table is confined to children not previously vaccinated with B.C.G. and gives a measure of the naturally acquired positive reactions to tuberculin in Belfast children. Our aim is to vaccinate the children at about 10 years of age, just before the time when they run increased risks of infection by the tubercle bacillus. The 819 nine-year-olds offered the test in 1964 were children nearing their tenth birthday; the few eight-year-olds and younger were tested for clinical reasons, usually to rule out tuberculosis as the cause of symptoms; those over 10 years were children who had avoided vaccination when they were younger.

Of the 3,474 unvaccinated children tested 11.4% gave positive reactions; the lowest percentage we have recorded since routine tuberculin testing started in Belfast in 1953. The percentages from 1957 to 1964 were 16.6, 15.4, 12.9, 12.5, 11.7, 14.3, 12.1, 11.4; the data from earlier years are not comparable because different age groups and different tests were used. These positive reactions in unvaccinated children are the result of accidental contact with the tubercle bacillus and they point to infectious cases of tuberculosis in the community from whom the children have received their infection directly or indirectly. It is desirable, therefore, to have as few naturally acquired positive reactors as possible, and the steady downward trend from 1957 to 1961 was noted with satisfaction; the rise to 14.3% in 1962 was disturbing but the tendency appears to be once again downward.

During 1964 our doctors vaccinated 3,278 children with B.C.G. Returns are made to us of Belfast residents of any age given B.C.G. vaccination by other authorities; these amounted to 1,929 for the year.

Part (b) of Table E10 shows the results of retesting 1,486 children previously vaccinated with B.C.G. Most of these children were aged nine to twelve years and their B.C.G. vaccinations had been given at various ages, the majority in infancy; positive reactions were found in over 95% of the children.

The proportion of refusals of B.C.G. vaccination at 30.5% is still disappointingly high, and our health visitors spend much time in following up defaulters.

Handicapped Pupils

Section 30 of the Education Act (N.I.), 1947, as amended, directs that all handicapped pupils over the age of two years shall be found and given special educational treatment; ten categories of educational handicap are defined in the Handicapped Pupils and Special Schools Regulations (N.I.), 1957.

Table E13 shows the numbers of educational handicaps affecting Belfast boys and girls at 31st December, 1964; Tables E14 to E20 relate to a count on the same date. The lists of handicapped pupils are constantly changing with additions and deletions almost daily; there is a tendency for the numbers to increase slightly from year to year, partly owing to more complete ascertainment, and partly because improved treatment keeps more handicapped pupils alive.

It is important that handicapped children should be discovered as early as possible so that remedial measures, both medical and educational, may be started at the correct stage of the child's development. The Maternity and Child Health Division deals with handicapped children until two years of age, often finding the handicap at a very early age. At two years we add the children to our list and investigate their need for special educational treatment which often must begin well before statutory school age.

Many children have more than one handicap and Table E13 shows that 4,854 handicaps were distributed among 4,185 children; it shows also that 829 handicapped children were at special day schools, 61 at special residential schools, and 3,172 at normal schools. Forty-one children were on home tuition given by teachers of the Dufferin and Ava Hospital School who spend part of their time teaching in the wards and part travelling to children's homes. A few severely handicapped children are on home tuition for long periods, and academically they may do very well; but the social side of school life is missing and so every effort is made to get all children placed at school. Home tuition for most children is a temporary expedient during convalescence or whilst waiting for a place at school. Eighty-two handicapped children were at no school; a few of these were awaiting admission to school, a few were under examination to complete their diagnosis, and a few were too ill for any form of education; most, however, were children under school age not needing nursery schooling, and most will be placed at school in due course.

Table E14 shows the numbers of children having one handicap, and Tables E15 and E16 show how the handicaps coincided in those children who had more than one. The intelligence quotients of the 2,187 children classed as educationally subnormal are shown in Table E17.

Table E18 shows the main defects suffered by the 24 handicapped pupils at Malcolm Sinclair School. This special nursery school used to deal only with spastic children who received regular physiotherapy and occupational therapy combined with a nursery school regime; for the past few years children with other physical handicaps have been admitted, though spasticity still accounts for 17 of the children. The children normally progress to Fleming Fulton School at various ages from 5 to 7 years where their treatment continues. Malcolm Sinclair School will move at about the end of 1965 from the present house at Ulsterville Avenue to new premises which are being built at Fleming Fulton School in the form of a nursery wing attached to the main school. The pupils from both departments will then be treated by the same therapists and amongst other advantages this move will simplify transport arrangements.

Table E19 shows the main defects of the 78 pupils at Fleming Fulton School; again cerebral palsy accounts for the majority of children, but there are now nine cases of spina bifida. Spina bifida is a congenital abnormality in which the lower end of the spine is incomplete or deformed so that the nerves from the spinal cord to the lower part of the body are damaged. The severity of the handicap varies, but most victims are paralysed from the waist down and are incontinent of bladder and bowels. This has always been a fairly common abnormality, but many of the affected children died in infancy. Improved treatment is now keeping more of these children alive and surgery at a very early age is being undertaken to try and reduce the handicap. We expect in future to have to deal with increasing numbers of children like these who require a great deal of domestic and nursing attention combined with their education and physiotherapy to keep them clean and free from bedsores. At present the staff of teachers, housemothers, and therapists deal with these problems, but we shall need trained nursing staff at Fleming Fulton School in future.

During most of 1964 the rebuilding of the Fleming Fulton premises proceeded with the school still in occupation. The children were little disturbed by this and indeed found the building operations very

interesting; the staff were confronted with the problems of dirt, noise and congestion. We hope that the buildings will be completed before the end of 1965 when new facilities will include a unit for physically handicapped pupils also suffering from deafness, and a small, heated, indoor pool for physiotherapy.

The new premises at Cedar Lodge School were fully occupied throughout 1964, and Table E20 shows the disabilities causing the admission of 52 delicate children during the year. For the past two years the average duration of stay of the children discharged has been about three years, which is rather longer than we used to keep them. The design of the new school has proved attractive and workable, and the honeycomb-like structure with hexagonal rooms adds interest to the surroundings. Staff and pupils alike speak highly of their new school.

Enrolment at the Greenwood House Diagnostic Centre was increased gradually to 28 at the end of the year. These were children aged 4 to 8 years showing intellectual or behavioural problems needing assessment over a period under favourable conditions. Some of these children will prove to be ineducable, but many will progress to other schools such as the junior school for the educationally subnormal at Haberton. Greenwood House School opened towards the end of 1963, and is already running very well; many of the children have been shown to present less intractable problems under the conditions provided here, and the sensible handling by the staff together with the society of other children have therapeutic as well as diagnostic value.

Conversion of the old Fortwilliam Primary School for use as a Child Guidance Clinic proceeded in 1964, and the premises were nearly complete by the end of the year. This clinic will be run jointly by the Health and Education Committees and the part-time services of a psychiatrist will be provided by the Hospitals Authority.

The special classes for the partially deaf at Harding Memorial and Fane St. Schools each had their full quota of 10 children throughout 1964. Regrettable delay in the conversion of premises for a third unit at Ballygolan School occurred and the work had not begun by the end of the year. We hope to have this unit and a fourth at Fleming Fulton School in action during 1965.

School Clinics

The new clinic at Cupar Street has been very busy; there have been increased numbers of patients in all departments, and the clinic still attracts many interested visitors. Building work on the new Lincoln Avenue Clinic for North Belfast went on in 1964 and the move from the old house at Carlisle Circus takes place early in 1965.

A. L. WALBY, M.B., D.P.H.,

Senior Medical Officer,

School Health Division.

Belfast Grant-Aided Schools

TABLE E 1

		Type of School	Number	Pupils
Nursery Schools and Classes			10	393
Primary†	County Primary Schools		65	26,287
	Voluntary Primary Schools under Roman Catholic Management		61	17,760
	Special Schools		10	927
	Day Instruction Centres		2	188
Secondary‡	County Secondary Schools		19	14,850
	Voluntary Secondary Schools †(Participating)		23	18,215
	Voluntary Secondary Schools †(Non-participating)‡‡		3	1,980
		Total	193	80,600

† These groups of schools are considered separately where possible in the following tables.

‡‡ These schools conduct their own schemes of medical and dental inspection and treatment under the provision of Section 42 (6) of the Education (Amendment) Act (N.I.), 1956.

† Includes preparatory school in most cases.

School Medical Inspections

TABLE E 2

Type of School	Sex	Routine Examinations					Nursery School examin- ations	Special examina- tions	Re- examina- tions	Totals				
		Age Groups												
		Entrants	II	III	IV	V								
Primary Schools	Boys	3,199	815	1,893	106	—	6,013	323	280	4,829	11,445			
	Girls	3,028	662	1,827	96	1	5,614	247	265	4,460	10,586			
Secondary Schools	Boys	72	82	537	2,459	1	3,151	—	140	3,437	6,728			
	Girls	142	87	357	1,891	3	2,480	—	81	2,474	5,035			
Totals	Both	6,441	1,646	4,614	4,552	5	17,258	570	766	15,200	33,794			

Attendance of Parents at Routine Medical Inspections

TABLE E 3

Age Group	Primary		Secondary	
	Boys	Girls	Boys	Girls
Entrants	2,242 (70.8%)	2,179 (73.3%)	37 (53.6%)	65 (46.4%)
II	302 (43.6%)	322 (55.5%)	8 (11.9%)	25 (41.0%)
III	681 (33.5%)	856 (43.8%)	23 (4.7%)	32 (9.5%)
IV	10 (8.2%)	14 (13.2%)	52 (2.1%)	38 (2.0%)
V	—	—	—	—
Totals	3,235 (53.8%)	3,371 (60.0%)	120 (3.8%)	160 (6.5%)
	6,606 (56.8%)		280 (5.0%)	
		6,886 (39.9%)		

Action to be Taken as a Result of Routine Medical Inspection

TABLE E 4

Age Group	Home visits		To Family Doctor		To School Clinic		To Eye Specialist		To E.N.T. Specialist		To Hospital		To Physio-therapist		To Speech Therapist		To Audiometrist		Other action	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Entrants	68	72	52	62	157	129	169	135	—	—	15	12	55	33	19	12	37	22	72	60
II	39	24	12	10	38	31	75	48	—	2	5	—	16	8	4	5	5	10	7	16
III	88	84	24	35	174	135	218	219	1	3	8	12	36	52	12	5	29	22	43	68
IV	91	70	41	30	134	105	266	231	13	12	9	7	35	32	13	2	19	11	72	49
V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	286	250	129	137	503	400	728	633	14	17	37	31	142	125	48	24	90	65	194	193
	536		266		903		1,361		31		68		267		72		155		387	

Estimates of Height (ins.) Weight (lbs.) of Boys and Girls according to age from Routine Medical Inspections
Year 1964

TABLE E 5

Estimates	Age Group in Years							
	4—	5—	6—	7—	8—	9—	10—	11—
Number of Boys measured	566	2,016	686	73	45	778	1,499	474
Mean Height in.	41.7	43.2	44.8	46.5	50.6	52.9	53.8	55.0
Mean Weight lb.	40.0	42.6	45.1	49.3	58.2	66.6	69.4	73.2
Number of Girls measured	595	1,899	674	53	28	667	1,457	405
Mean Height in.	41.3	42.7	44.6	46.1	49.2	52.7	53.6	54.8
Mean Weight lb.	38.9	40.5	43.8	48.0	56.3	65.9	69.0	73.5

TABLE E 6
Nutrition

Age Group	Type of School	NORMAL (A)		SUB-NORMAL (B)		BAD (C)	
		Boys	Girls	Boys	Girls	Boys	Girls
Entrants	Primary	2,904 (91.7%)	2,644 (88.9%)	226 (7.1%)	259 (8.7%)	37 (1.2%)	70 (2.4%)
	Secondary	68 (98.6%)	118 (84.3%)	1 (1.4%)	18 (12.9%)	—	4 (2.8%)
II	Primary	650 (93.9%)	545 (94.0%)	39 (5.7%)	33 (5.7%)	3 (0.4%)	2 (0.3%)
	Secondary	66 (98.5%)	58 (95.1%)	1 (1.5%)	3 (4.9%)	—	—
III	Primary	1,910 (94.0%)	1,820 (93.2%)	119 (5.9%)	122 (6.2%)	3 (0.1%)	11 (0.6%)
	Secondary	477 (97.0%)	321 (95.5%)	15 (3.0%)	14 (4.2%)	—	1 (0.3%)
IV	Primary	119 (97.5%)	101 (95.3%)	3 (2.5%)	5 (4.7%)	—	—
	Secondary	2,372 (94.1%)	1,867 (96.2%)	144 (5.7%)	72 (3.7%)	5 (0.2%)	2 (0.1%)
V	Primary	— —	2 (100.0%)	— —	— —	— —	— —
	Secondary	2 (100.0%)	2 (100.0%)	— —	— —	— —	— —
Totals	Primary	5,583 (92.9%)	5,112 (91.1%)	387 (6.4%)	419 (7.4%)	43 (0.7%)	83 (1.5%)
	Secondary	2,985 (94.7%)	2,366 (95.4%)	161 (5.1%)	107 (4.3%)	5 (0.2%)	7 (0.3%)

Defects Discovered at Routine Medical Inspection

TABLE E 7

Defect		Type of school	Defective for treatment	Per 1,000	Defective for observation	Per 1,000	Total defective	Per 1,000	
Skin		Primary	122	10.5	180	15.5	302	26.0	
		Secondary	80	14.2	105	18.6	185	32.8	
		Total	202	11.7	285	16.5	487	28.2	
Eyes	(a) vision	Primary	904	77.8	2,192	188.5	3,096	266.3	
		Secondary	518	92.0	1,275	226.4	1,793	318.4	
		Total	1,422	82.4	3,467	200.9	4,889	283.3	
	(b) squint	Primary	137	11.8	401	34.5	538	46.3	
		Secondary	32	5.7	143	25.4	175	31.1	
		Total	169	9.8	544	31.5	713	41.3	
	(c) other	Primary	44	3.8	66	5.7	110	9.5	
		Secondary	17	3.0	18	3.2	35	6.2	
		Total	61	3.5	84	4.9	145	8.4	
Ears	(a) hearing	Primary	214	18.4	105	9.0	319	27.4	
		Secondary	75	13.3	31	5.5	106	18.8	
		Total	289	16.7	136	7.9	425	24.6	
	(b) otitis media	Primary	35	3.0	84	7.2	119	10.2	
		Secondary	5	0.9	21	3.7	26	4.6	
		Total	40	2.3	105	6.1	145	8.4	
	(c) other	Primary	60	5.2	87	7.4	147	12.6	
		Secondary	12	2.1	22	3.9	34	6.0	
		Total	72	4.2	109	6.3	181	10.5	
Nose and Throat		Primary	179	15.4	1,133	97.4	1,312	112.8	
		Secondary	42	7.5	199	35.3	241	42.8	
		Total	221	12.8	1,332	77.2	1,553	90.0	
Speech		Primary	66	5.7	189	16.2	255	21.9	
		Secondary	14	2.5	41	7.3	55	9.8	
		Total	80	4.6	230	13.3	310	17.9	
Cervical glands		Primary	15	1.3	105	9.0	120	10.3	
		Secondary	2	0.4	8	1.4	10	1.8	
		Total	17	1.0	113	6.5	130	7.5	
Heart and circulation		Primary	80	6.9	246	21.1	326	28.0	
		Secondary	23	4.1	67	11.9	90	16.0	
		Total	103	6.0	313	18.1	416	24.1	
Lungs	(a)	Primary	167	14.4	285	24.5	452	38.9	
		Secondary	39	6.9	81	14.4	120	21.3	
		Total	206	11.9	366	21.2	572	33.1	
	(b) pulmonary tuberculosis	Primary	2	0.2	2	0.2	4	0.4	
		Secondary	—	—	4	0.7	4	0.7	
		Total	2	0.1	6	0.3	8	0.4	
Development		Primary	58	5.0	223	19.2	281	24.2	
		Secondary	52	9.2	67	11.9	119	21.1	
		Total	110	6.4	290	16.8	400	23.2	
Orthopaedic	(a) posture	Primary	41	3.5	11	0.9	52	4.4	
		Secondary	27	4.8	7	1.2	34	6.0	
		Total	68	3.9	18	1.0	86	4.9	
	(b) feet	Primary	150	12.9	159	13.7	309	26.6	
		Secondary	55	9.8	100	17.7	155	27.5	
		Total	205	11.9	259	15.0	464	26.9	
	(c) other	Primary	23	2.0	78	6.7	101	8.7	
		Secondary	7	1.2	44	7.8	51	9.0	
		Total	30	1.7	122	7.1	152	8.8	

TABLE E 7 (continued)

Defect	Type of school	Defective for treatment	Per 1,000	Defective for observation	Per 1,000	Total defective	Per 1,000
Nervous system	Primary	11	0.9	30	2.6	41	3.5
(a) epilepsy	Secondary	1	0.2	12	2.1	13	2.3
	Total	12	0.7	42	2.4	54	3.1
(b) other	Primary	4	0.3	28	2.4	32	2.7
	Secondary	2	0.4	13	2.3	15	2.7
	Total	6	0.3	41	2.4	47	2.7
Psychological	Primary	47	4.0	176	15.1	223	19.1
(a) development	Secondary	4	0.7	57	10.1	61	10.8
	Total	51	3.0	233	13.5	284	16.5
(b) stability	Primary	38	3.3	67	5.7	105	9.0
	Secondary	4	0.7	3	0.5	7	1.2
	Total	42	2.4	70	4.1	112	6.5
Tuberculosis—non-pulmonary	Primary	—	—	—	—	—	—
	Secondary	—	—	1	0.1	1	0.1
	Total	—	—	1	0.1	1	0.1
Other defects	Primary	114	9.8	198	17.0	312	26.8
	Secondary	33	5.9	76	13.5	109	19.4
	Total	147	8.5	274	15.9	421	24.4

The numbers of children examined were:—Primary 11,627, Secondary 5,631, Total 17,258.

The visual acuity could not be accurately assessed in 156 schoolchildren; for "Eyes (a) vision", therefore, the number examined was 17,102.

TABLE E 8

(a) schoolchildren without glasses

		Left eye						Right eye			
		Visual acuity	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	Totals
6/6	12,506	550	142	74	45	51	19	21	21	13,408	
6/9	449	1,020	145	57	26	18	4	2	2	1,721	
6/12	159	162	304	67	36	15	5	4	752		
6/18	73	71	85	197	45	29	3	2	505		
6/24	38	28	33	44	108	21	3	1	276		
6/36	33	28	15	26	33	110	11	1	257		
6/60	17	5	6	1	3	20	60	7	119		
<6/60	13	1	4	3	3	1	6	33	64		
Left eye	Totals	13,288	1,865	734	469	299	265	111	71	17,102	

(b) schoolchildren with glasses

		Left eye						Right eye			
		Visual acuity	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	Totals
6/6	518	97	46	28	10	20	3	3	3	725	
6/9	95	149	33	16	5	4	1	—	—	303	
6/12	50	51	72	17	4	4	1	—	—	199	
6/18	20	17	20	29	4	—	—	—	1	91	
6/24	16	7	2	8	7	2	—	—	—	42	
6/36	10	3	1	2	1	3	—	—	1	21	
6/60	2	1	—	—	—	—	—	—	1	—	4
<6/60	2	—	—	—	—	—	—	—	—	—	3
Left eye	Totals	713	325	174	101	31	33	6	5	1,388	

Colour Vision

TABLE E 9

Colour Vision	Boys	Girls	Total
Normal	2,688 (91.8%)	2,169 (99.1%)	4,857 (94.9%)
Defective—safe	113 (3.9%)	18 (0.8%)	131 (2.6%)
Defective—unsafe	125 (4.3%)	1 (0.1%)	126 (2.5%)
Total	2,926 (100.0%)	2,188 (100.0%)	5,114 (100.0%)

Tuberculin Tests

(Unvaccinated Children)

TABLE E 10 (a)

Age	Number of children available	Offered* tuberculin test	Refused	Tested	Negative	Positive
4	1,162	3	— —	3	2 (66.7%)	1 (33.3%)
5	3,918	2	1 (50.0%)	1	1 (100.0%)	— —
6	1,361	—	— —	—	— —	— —
7	128	1	1 (100.0%)	—	— —	— —
8	73	32	7 (21.9%)	25	21 (84.0%)	4 (16.0%)
9	1,445	819	183 (22.3%)	636	567 (89.2%)	69 (10.9%)
10	2,952	1,836	392 (21.4%)	1,444	1,316 (91.1%)	128 (8.9%)
11	879	538	123 (22.9%)	415	381 (91.8%)	34 (8.2%)
12	783	276	117 (42.4%)	159	139 (87.4%)	20 (12.6%)
13	2,255	738	337 (45.7%)	401	342 (85.3%)	59 (14.7%)
14	2,031	647	317 (49.0%)	330	265 (80.3%)	65 (19.7%)
15	266	100	43 (43.0%)	57	43 (75.4%)	14 (24.6%)
16	5	3	— —	3	2 (66.7%)	1 (33.3%)
Totals	17,258	4,995	1,521 (30.5%)	3,474	3,079 (88.6%)	395 (11.4%)

* From 10 years onwards the difference between this figure and the number available is accounted for largely by children known to have had B.C.G. vaccination, but includes some who had skin disease or other ailments making tuberculin testing undesirable. At routine medical inspections the younger children are not usually offered tuberculin test unless they are tuberculosis contacts, or their parents request it, or they are nearing 10 years of age.

(Vaccinated Children)

TABLE E 10 (b)

Age	Offered tuberculin test	Refused	Tested	Negative	Positive
5	2	— —	2	— —	2 (100.0%)
7	3	3 (100.0%)	—	— —	— —
8	17	3 (17.7%)	14	2 (14.3%)	12 (85.7%)
9	507	88 (17.4%)	419	22 (5.3%)	397 (94.8%)
10	902	149 (16.5%)	753	27 (3.6%)	726 (96.4%)
11	189	44 (23.3%)	145	11 (7.6%)	134 (92.4%)
12	170	48 (28.2%)	122	4 (3.3%)	118 (96.7%)
13	103	45 (43.7%)	58	4 (6.9%)	54 (93.1%)
14	79	36 (45.6%)	43	3 (7.0%)	40 (93.0%)
15	6	3 (50.0%)	3	— —	3 (100.0%)
16	1	1 (100.0%)	—	— —	— —
Totals	1,979	420 (21.2%)	1,559	73 (4.7%)	1,486 (95.3%)

TABLE E 11**Re-examinations**

Defects for which Re-examined			For treatment	For observation	Cured
Skin			54	275	233
Eyes	(a)	vision	1,655	5,011	1,626
	(b)	squint	103	435	142
	(c)	other	57	54	53
Ears	(a)	hearing	402	390	334
	(b)	otitis media	22	44	54
	(c)	other	45	57	51
Nose and throat			195	892	1,166
Speech			119	385	244
Cervical glands			10	41	68
Heart and circulation			72	355	196
Lungs	(a)		79	397	331
	(b)	pulmonary tuberculosis	7	37	19
Development			82	313	150
Orthopaedic	(a)	posture	15	59	59
	(b)	feet	49	261	302
	(c)	other	12	82	99
Nervous system	(a)	epilepsy	9	39	9
	(b)	other	14	43	26
Psychological	(a)	development	57	389	177
	(b)	stability	31	63	50
Tuberculosis—non-pulmonary			—	1	2
Other defects			95	307	280
Totals			3,184	9,930	5,671
			18,785		

18,785 defects in 15,200 children (primary 9,289 and secondary 5,911)

Clinic Examinations**TABLE E 12**

Reason for examination		Number of examinations	Per cent
Skin		1,512	8.3
Eyes	(a) vision	336	1.8
	(b) squint	37	0.2
	(c) other	155	0.9
Ears	(a) hearing	1,537	8.4
	(b) otitis media	270	1.5
	(c) other	217	1.2
Nose and throat		565	3.1
Speech		123	0.7
Cervical glands		26	0.1
Heart and circulation		317	1.7
Lungs	(a)	602	3.3
	(b) pulmonary tuberculosis	5	0.02
Development		152	0.8
Orthopaedic	(a) posture	18	0.1
	(b) feet	194	1.1
	(c) other	94	0.5
Nervous system	(a) epilepsy	41	0.2
	(b) other	48	0.3
Psychological	(a) development	614	3.4
	(b) stability	236	1.3
Tuberculosis non-pulmonary		5	0.02
Other defects		1,906	10.5
B. C. G. vaccination		3,278	18.0
Tuberculin skin test		2,316	12.7
Pre-anæsthetic examination		3,606	19.8
Total		18,210	100.0

TABLE E 13**Special Educational Treatment**

Handicap	At special day school		At special residential school		At normal school		At no school		At home tuition		Totals	
			Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Blind	4	6	1	3	—	—	2	1	—	—	7	10
Partially sighted	18	14	4	2	27	17	5	2	—	—	54	35
Deaf	5	3	2	2	—	—	2	5	—	—	9	10
Partially deaf	26	18	7	2	168	104	3	1	1	1	205	126
Delicate	72	51	1	—	59	54	3	—	8	4	143	109
Educationally subnormal	341	225	22	4	968	564	34	24	3	2	1,368	819
Epileptic	22	16	1	1	72	55	6	4	2	1	103	77
Maladjusted	62	27	9	2	105	52	1	—	2	2	179	83
Physically handicapped	71	66	8	7	104	105	16	9	7	15	206	202
Speech defect	60	27	—	2	729	289	1	—	1	—	791	318
Total handicaps	681	453	55	25	2,232	1,240	73	46	24	25	3,065	1,789
	1,134		80		3,472		119		49			4,854
Total pupils	487	342	41	20	2,037	1,135	51	31	19	22	2,635	1,550
	829		61		3,172		82		41			4,185

4,854 handicaps in 4,185 pupils (2,635 boys, 1,550 girls). Of these 522 children have 2 handicaps, 66 have 3 handicaps, and 5 have 4 handicaps.

TABLE E 14**Single Handicaps**

Number of children affected	Handicap
16	Blind
64	Partially sighted
15	Deaf
233	Partially deaf
201	Delicate
1,640	Educationally sub-normal
108	Epileptic
41	Maladjusted
310	Physically handicapped
964	Speech defect
3,592	Total

Dual Handicaps

TABLE E 15

Handicap	Blind	Partially sighted	Deaf	Partially deaf	Delicate	E.S.N.	Epileptic	Maladjusted	Physically handicapped	Speech Defect
Speech defect	—	—	—	5	—	95	—	1	9	110
Physically handicapped	—	4	3	3	3	48	2	5	77	
Maladjusted	—	—	—	—	2	179	3	190		
Epileptic	—	—	—	1	1	48	55			
E. S. N.	1	13	—	—	64	28	476			
Delicate	—	1	—	—	3	38				
Partially deaf	—	—	—	—	76					
Deaf	—	—	—	—	3					
Partially sighted	—	—	18							
Blind	1									

Showing the distribution of 1,044 handicaps among
the 522 children who have two handicaps.

Multiple Handicaps

TABLE E 16

Number of children affected	Categories of handicaps coinciding		
	First	Second	Third
1	P. sighted	P. deaf	E.S.N.
2	P. sighted	E.S.N.	Epileptic
1	P. sighted	E.S.N.	Maladjusted
1	P. sighted	E.S.N.	P. handicapped
1	P. sighted	E.S.N.	Speech defect
1	Deaf	E.S.N.	Maladjusted
5	P. deaf	Delicate	E.S.N.
5	P. deaf	E.S.N.	Maladjusted
3	P. deaf	E.S.N.	P. handicapped
6	P. deaf	E.S.N.	Speech defect
1	Delicate	E.S.N.	Epileptic
4	Delicate	E.S.N.	Maladjusted
2	Delicate	E.S.N.	Speech defect
3	E.S.N.	Epileptic	Maladjusted
5	E.S.N.	Epileptic	P. handicapped
4	E.S.N.	Epileptic	Speech defect
2	E.S.N.	Maladjusted	P. handicapped
13	E.S.N.	Maladjusted	Speech defect
6	E.S.N.	P. handicapped	Speech defect
66		Total with triple handicaps	
		First	Second
		Third	Fourth
1	P. sighted	E.S.N.	Epileptic
1	P. deaf	E.S.N.	Maladjusted
1	P. deaf	E.S.N.	P. handicapped
1	Delicate	E.S.N.	Maladjusted
1	E.S.N.	Epileptic	P. handicapped
5		Total with quadruple handicaps	

Intelligence Quotients of E. S. N. Pupils

TABLE E 17

I.Q.	<45	45-	50-	55-	60-	65-	70-	75-	80-	90-	100-	110-	120+	Totals
Boys	29	19	30	49	66	76	136	157	401	258	110	28	9	1,368
Girls	11	11	25	33	52	88	94	131	215	118	36	3	2	819
Both	40	30	55	82	118	164	230	288	616	376	146	31	11	2,187

Malcolm Sinclair School

TABLE E 18

Reasons for admission	Boys	Girls	Total
Cerebral palsy	13	4	17
Congenital deformities	1	—	1
Encephalitis	—	1	1
Kernicterus	1	—	1
Osteochondrosis	1	1	2
Spina bifida	1	1	2
Total	17	7	24

Fleming Fulton School

TABLE E 19

Reasons for admission	Boys	Girls	Total
Cerebral palsy	27	30	57
Christmas disease	1	—	1
Congenital deformities	—	2	2
Hydrocephalus	—	2	2
Kernicterus	2	—	2
Muscular dystrophy	3	1	4
Poliomyelitis	—	1	1
Spina bifida	9	—	9
Total	42	36	78

Cedar Lodge School

TABLE E 20

Reasons for admission	Boys	Girls	Total
Asthma	16	7	23
Bronchiectasis	1	—	1
Bronchitis	5	3	8
Debility	—	1	1
Developmental defect	—	1	1
Heart disease (congenital)	2	3	5
Heart disease (rheumatic)	—	1	1
Injury to leg	1	—	1
Maladjustment	—	1	1
Muscular dystrophy	1	—	1
Peritonitis	1	—	1
Poliomyelitis	1	1	2
Renal disease	—	3	3
Rheumatic arthritis	—	2	2
Skull deficiency	1	—	1
Number admitted during 1964	29	23	52
Number discharged during 1964	32	25	57
Average duration of stay in months	33	39	36
Total on roll at 31st December, 1964	102	71	173

Miscellaneous

TABLE E 21

Ultra-violet Light Treatments	3,700
Physiotherapy:	
Children treated	971
Total attendances	11,628
Cases discharged	303
Waiting list	4
Speech Therapy:	
Total attendances	6,595
Audiometry:	
Children sweep tested at school	7,943
Children failing sweep test	827
Children failing individual test	624
Other children individually tested	2,378
Children referred to specialist	128
Cleanliness:	
Children inspected	146,032
Children found to have nits	6,130
Children found to have vermin	2,331
Children cleansed at clinics	3,915
B. C. G. Vaccinations:	
Vaccinations at School Clinics	3,278
Vaccinations by other authorities	1,929
Children tuberculin tested at school	3,474
Children showing positive reaction	395
Children showing negative reaction	3,079
Vaccinated children retested—positive	1,486
Vaccinated children retested—negative	73
(11.4%)	
(88.6%)	
(95.3%)	
(4.7%)	
Nurses' Home Visits	11,350
Nurses' School Visits (other than routine inspections)	1,553
Medical Officers' Visits	158
Eye Specialist:	
Children refracted	5,475
Children given post-mydiatic examination	2,717
Children examined for other eye conditions	804
Children referred for orthoptic treatment	97
Medical Specialist:	
Children examined at school clinics	60
Children examined at special schools	136
General Anaesthetics	3,606
Education Art Sections 32 and 53:	
Children reported to N.I. Hospitals Authority (Section 32 'A')	59
Children reported to Welfare Authority (Section 32 'B')	52
Children reported to N.I. Hospitals Authority (Section 53)	44
Youth Employment:	
Children examined under Employment Bye-Laws	809
Children found unfit for employment	1
Reports to Youth Employment Service on school-leavers	185

REPORT OF THE CHIEF DENTAL OFFICER FOR THE YEAR 1964

Dental Inspection in Schools

Dental inspection was provided in all schools participating in the Health Committee's scheme and, additionally, twice annual dental inspection was provided at nursery and special schools.

The total number of children examined was 74,305, or 94.5% of the total roll, while the number of children found to be in need of dental care amounted to 42,741 or 57.5%. This defective rate shows a very substantial drop, compared with 68.6% in the previous year.

Parental consent to dental care was 39,836, or 93.2% of those in need of care, of which total 11,502 (28.9%) elected to attend Health Committee clinics and 28,334 (71.1%) preferred to make their own private arrangements.

Attendances at Clinics

All children requesting dental care under the Health Committee's scheme were allocated appointments at clinics and treatment was provided for 11,502 individuals. This constitutes an increase of 14.2% above the figure for 1963 of children attending for treatment at clinics. Return clinic visits for check inspections totalled 10,170.

Treatments

The treatment service followed the now familiar pattern of a fully comprehensive service, embracing routine and specialised treatments, orthodontics and prosthetics. Although the number of individuals treated at clinics in 1964 was the highest for the past ten years, treatment demands continue to fall.

General anaesthetics administered declined by 859 as compared with the previous year and teeth extracted fell by 1,782 to give a rate of 0.5 per individual as compared with 0.7 in 1963. Fillings showed a marked decline to the extent of 2,803, to give a rate of 2.2 fillings per individual, as compared with 2.7 in 1963. This is a desirable trend and, when viewed with the declining defective rate, appears to indicate a growing public consciousness of the need for regular dental care.

The orthodontic section continued to function satisfactorily and 237 patients were provided with 342 appliances, while treatment was completed for 85 patients. In comparison with 1963, these figures represent an increase of 25% in the number of patients undergoing treatment and an increase of 10.4% in the number of patients for whom treatment was completed. In spite of the fact that orthodontic treatment requires the full co-operation of parent and child, it was found necessary to suspend treatment in only two instances.

Maternity and Child Health

Activities in this section were confined entirely to the dental care of the pre-school child. The doubts expressed in my 1963 report that the expansion of this service would not increase in 1964 have been justified, as the intake of patients has remained substantially the same. This is a disappointment and, although there are difficulties which militate against any dramatic expansion, these difficulties should not be laboured; rather they should be a challenge to both medical and dental sections, firstly, to use every possible opportunity to make known the existence of the pre-school dental service and secondly, that the utilisation of this service is fundamental in any effort which aims at the control of dental disease in children.

Dental Health Education

Medical and dental staff continued to impart advice on this subject to children in schools, Health Visitors giving illustrated talks, supplemented by film shows and Dental Officers giving short talks at School Dental Inspections. The facts that the pattern of a slow gradual decline in the annual defective rate has now become a sudden plunge in a downward direction and that treatment requirements per individual have also declined are evidence that time spent in dental health education has been well worthwhile. Health Visitors have played a major part in this exercise but shortage of staff and the pressure of more urgent duties has tended to slow down the effort, when intensification of effort is needed.

General Remarks

In recent years there have been references in many areas of the United Kingdom to the appalling condition of children's teeth and the survey of dental caries prevalence, undertaken in Belfast in 1963, has shown that the situation here is no less deplorable. Dental caries or tooth decay in children at age three is very extensive and, while approximately one third of the children examined in this age group were free from dental caries, of those children actually involved in the disease at this age, the average child had five decayed teeth.

The pre-school child does not normally come under the care of the School Dental Service until school entry age, when the Dental Officer, more often than not is brought face to face for the first time with a picture of gross neglect and widespread destruction of dental tissues. It is surely illogical that, at the tender age of five, the child should have its first experience of the dentist in an effort to remedy the gross neglect of earlier years. The child, faced with the necessity for difficult and possibly not too pleasant treatment measures, will most likely remember this occasion for a long time and, as a consequence, the outlook for his subsequent co-operation in regular dental care cannot be regarded with any degree of optimism.

It is entirely wrong that a young child should be introduced to dentistry in this manner. A new approach to dental care in the child is therefore urgently needed and it is logical that this should begin before the onset of dental disease. Dental advice should be available to the mother at the pre-natal stage and again when the child's first primary teeth begin to erupt. It is at each of these stages that proper guidance in regard to diet, dietary habits and oral hygiene can help prevent the early onset of dental disease. Thereafter regular periodic visits by parent and child can provide the opportunity for continued guidance, regular dental inspection and the child meeting the dentist under comparatively pleasant circumstances. Such an approach leaves the mother in no doubt as to the function of primary dentition and the measures necessary to safeguard it. It also provides the opportunity for the creation of a more harmonious relationship between dentist and child and therefore mutual confidence. As long as parents remain in ignorance of the functions of the primary dentition in the child and the measures for prevention of early onset of dental disease, so long will it remain an almost insuperable task to bring about any effective control of it.

My final remarks refer to the sorrow felt on the death of Mr. W. R. Morrow, L.D.S. Mr. Morrow entered the dental section of the School Health Service in 1953 and at all times remained a popular figure not only with his professional colleagues but with the children who came under his care. His passing at a comparatively early age is deeply regretted within the department.

In conclusion, might I once again express my appreciation of the co-operation which I have received from all sections of the service (both medical and dental) and to principals and teachers for the facilities provided and the interest shown in the various dental activities.

S. R. SHEANE, L.D.S.,

Chief Dental Officer.

Dental Inspection

TABLE F 1

School Health				Maternity and Child Health		
Participating Schools		*Special	*Nursery	Non participating	Maternity	Pre-school
Total on school rolls	78,620	927	3,893	1,980	—	—
Total inspected	74,305	1,566	656	1,868	—	568
Age groups 5 to 7	18,707	—	—	—	—	—
Other age groups	55,598	—	—	—	—	—
Total defective	42,741	860	240	608	—	428
Defective percentage	57.5	54.9	36.5	32.5	—	75.3
Consenting to Treatment	39,836	739	197	—	—	416
By Health Authority	11,502	377	61	—	—	416
By own dentist	28,334	362	136	—	—	—
Appointments issued	11,502	377	61	—	—	416
Inspection sessions	547	9.5	6.5	—	—	—
Clinic inspections	10,170	—	—	—	—	216

* Inspected twice annually, and an extract from participating school totals

TABLE F 2

Participating schools	*Special	*Nursery	Maternity	† Pre-school	Totals
Extractions:					
Temporary teeth	4,466	106	13	—	396
Permanent teeth	1,679	109	4	—	1,679
Total	6,145	215	17	—	396
					6,541
Anaesthetics:					
General	2,932	97	9	—	236
Local	2,596	14	2	—	7
Total	5,528	111	11	—	243
					5,771
Fillings:					
Temporary teeth	7,412	65	51	—	659
Permanent teeth	17,303	375	8	—	17,303
Total	24,715	440	59	—	659
					25,374
Root canal therapy	25	—	—	—	25
Crowns	10	1	—	—	10
Inlays	3	—	—	—	3
Gingivectomy	9	—	—	—	9
Scaling and Polishing	1,506	46	3	—	79
Dressings	1,225	31	17	—	49
Other operations	570	23	2	—	27
X-ray films	553	8	—	—	553
Patients provided dentures	33	7	—	—	33
Total treatments	40,322	882	109	—	1,453
Individuals treated	11,502	278	36	—	410
Total treatment courses	11,579	199	20	—	322
Total treatment visits	29,476	616	105	—	1,506
Total treatment sessions	5,326	—	—	—	5,326
Orthodontics:					
Patients provided appliances	237	3	—	—	237
Total appliances provided	342	3	—	—	342
Total treatments completed	85	1	—	—	85
Total treatments suspended	2	—	—	—	2
Total treatment visits	2,897	73	—	—	2,897
Total sessions	315	—	—	—	315

* Extract from participating school totals.

† Treatment of pre-school children is absorbed into the School Health sessions pending development.

TABLE F 3

Clinic accommodation	
Static Clinics:	
North Belfast	Mountcollyer Street Ariel Street
South Belfast	Academy Street
East Belfast	Cherryville Street
West Belfast	Cupar Street
Mobile clinics	Nil

TABLE F 4

Staff complement	
Chief Dental Officer	1
Clinic Dental Officers	4
Dental Officers (full time)	6
Dental Officers (part time)	8
Total (expressed as full time equivalent)	12.2
Anaesthetists	5
Professional staff was fully supported by Dental Surgery Assistants acting in both surgical and administrative capacities.	

INDEX

	<i>Page</i>
Abattoir: Report of City Veterinarian	74-76
After Care	85
Air Pollution	20, 30-34, 47
Aliens, Medical Inspection of, at Port	40
Ante Natal Clinics and attendances at	78
Area of City	6
Audiometry, School Children	102
 Bakehouses	49, 50
B.C.G. Vaccination	18, 87, 88, 96
Betting and Lotteries Act (N.I.), 1957	51
Births	6, 77
— : and Birth Rate	14
— : Rates and natural increase, 1890-1964 (Table)	77
— : Notification	98-100
Blind Children	75, 76
Bovine Cysticercosis	50
Bread Shops	12, 82
Bronchitis, Deaths from	29
Burial Grounds	64
Butchers' Shops, Registration of	65
 Cafes; Conditions on inspection	15
Cancer; Deaths from; by sex and site	65
Canteens, non-industrial; Conditions on inspection	20-73
Chief Public Health Inspector's Report	78, 79
Child Health Centres and attendances at	85
Chiropody Services	28
Cinemas and Theatres	102
Cleanliness of School Children	59
Coconut, Dried	96
Colour Vision, School Children	6, 18, 80
Communicable Diseases	6, 16
— : Deaths and Death Rate	16
— : Notifications 1900-1964 (Table)	59
Confectionery, frozen	25
Conversion Schemes	44
Crew's spaces, Hygiene of	28
 Deaf Children	98-100
Deaths	6
— : and Death Rate	15
— : Cancer, by sex and site (Table)	10, 11
— : Causes at different age periods (Table)	6, 16
— : Communicable Diseases	16
— : Communicable Diseases, 1880-1964 (Table)	12
— : Principal causes in order of importance	12
— : Rates and percentage of total deaths by age groups (Table)	12
— : Trend of mortality from 1910 (Table)	13
— : Infants under one year of age	6, 77, 83
— : Infants under one year of age from certain causes (Table)	82
Defects discovered at routine medical inspections	87, 93-94
Delicate Children	98-100
Dental	103
— : Attendances at clinics	103, 104
— : Chief Dental Officer's general remarks	103-106
— : Chief Dental Officer's Report	103, 105
— : Inspection in schools	105
— : Inspection in non-participating schools	106
— : Staff complement and Clinic accommodation (Tables)	122, 123
Deratting of Ships	44
Diphtheria	6, 16
— : Deaths from	18, 19
Disinfection	71
Drain Tests	28, 71
Dumping of Rubbish	21, 26
Dysentery	16-18

	Page
Educationally Sub-normal children	98-100
Egg, Egg Powder and Egg Albumen, imported	59
Enteritis and Diarrhoea : Deaths from	16
Epileptic Children	98-100
Fabrics (Misdescription) Act, 1913	53
Factories Acts (N.I.) 1938 to 1959; Administration of Food	47-49
— : and Drugs; general	54-66
— : and Drugs; samples analysed	46, 55-57
— : adulterated; legal proceedings	56
— : inspection by Port Sanitary Officers	46, 47
— : poisoning	17
— : premises: Inspection of	64-66
— : unfit	47, 59-61
Food Hygiene Regulations	20, 63-66, 76
Fried Fish premises, Registration of	66
Frozen Confectionery	59
Fruit Imported	59
Fumigation of Ships	44
Gastro-Enteritis, deaths from	16
General Observations by M.O.H.	7-9
Hairdressers Act (N.I.), 1939	29
Handicaps, Multiple	98-100
Handicapped Pupils	88, 89, 98-100
Head Cleansing; School children	102
Health Committee, 1963	3
Health Visiting; Maternity and Child Health Division	77, 78
Height of school children (Table)	91
Home Nursing Service	84, 85
Homes, Mother and Baby (Table)	79
Hydrogen Cyanide Fumigation	70
Ice-Cream,	61, 62
Immunisation	18, 19
Improvement Grants	25
Infant Mortality	6, 12, 13, 77, 83, 84
— : age groups (Table)	83
— : causes and sex (Table)	83
Influenza, Deaths from	6
Insects other than Mosquitoes; Infestation by	70
Inspections	
— : Cleanliness of School Children	102
— : Routine Medical, of School Children	86, 90
Itinerants	29, 30
Legal Proceedings taken under various Acts, Analysis of (Table)	72
Licensed Premises and Bottling Stores, conditions discovered	66
Lincoln Avenue Clinic	89
Lodging Houses: Common	29
Lodgings ,Houses let in	25
Maladjusted Children	98-100
Marine Stores	54
Marriages and Marriage Rate	6
Maternal Mortality	6, 77
Maternal Mortality; Rate according to cause of death (Table)	84
Maternity and Child Health Division; Report by Senior Medical Officer	77-85
Maternity Medical Services	81
Measles	6
Meat Inspection: City Veterinarian's Report	74-76
Meat shipping Regulations	76
Meat: transport of	76
Merchandise Marks Acts 1887/1953	59
Methyl Bromide fumigation	70
Midwives	80, 81
Milk Control	57-59

INDEX—Continued

Milk; Bacteriological Examination of	58, 59
Mineral Waters	23, 59
Mosquito Control	69, 70
Mother and Baby Homes (Table)	79
Neo-Natal Deaths (under one month)	6, 77, 84
Non-Industrial Premises	51
Nurseries; Residential	80
Nuisances; under Public Health Acts	25-27
Nursing Homes; Registration of	81
Nursery Schools, Centres and Special Schools	88, 101
Nutrition of School Children	92
Offensive Trades	29
Office Accommodation, Inspection of	51
Outworkers Premises	48, 49
Parents at Medical Inspections	90
Partially Deaf Children	98-100
Partially sighted Children	98-100
Perinatal Mortality	6, 77
Pests Control	67-70
Pharmacy and Poisons Act (N.I.) 1955	52
Physically Handicapped Children	98-100
Planning Proposals	21
Poliomyelitis : Deaths from	6
Poliomyelitis Immunisation	18, 19
Population	6
Population; Table showing population from 1890-1964	14
Port: Amount of Shipping entering during the year	38
— : Character of Trade	38
— : Sanitary Authority; Report	35-47
Public Health (Imported Food) Regulations 1937-1948	46
Public Health Inspectors; Staff position	20
Puerperal Pyrexia; Notification of	80
Pupils, Handicapped	98-100
Rag Flock Act, 1911	52
Rainfall	73
Re-examination of School Children	97
Refuse Collection and Disposal	21
Rents and Mortgage Interest (Restriction) Acts (N.I.), 1920-1961	25
Restaurants; Conditions on Inspection	65
Rivers	21-29
Rodents, Measures against at Port	42-44
Sanitary Section; Report of Chief Public Health Inspector	20-73
Sanitary Conveniences, Public	29
Scabies	71
Scarlet Fever : Deaths from	6
School	
— : Buildings; Sanitary Inspection of	29
— : Cedar Lodge	101
School Health Division; Report of Senior Medical Officer	86-105
Schools:	
— : Grant-aided	86, 90
— : Special	88, 101
— : Average Heights and weights	91
— : Clinic Examinations	97
— : Defects discovered at Medical Inspection	87, 93, 94
— : Educationally Sub-normal	98-100
— : Nutrition	92
School Children:	
— : Re-examination group	97
— : Routine Medical Inspection	87, 90
Sewerage and Sewage Disposal	21
Shellfish	46
Shops Act (N.I.) 1946; Inspections under	52, 53
Slum Clearance and Redevelopment	20, 24
Smoke Abatement	20, 37-42, 55

INDEX—Continued

<i>Pa_o</i>	65
Snack Bars; Conditions on Inspection	65
Speech Defects	98-100
Speech Therapy	102
Stables	29
Staff; At 1st August, 1965	4, 5
Statistics, Comparative:—for Certain Counties and County Boroughs	12
Statistics, Comparative: Belfast, N. Ireland, England, Wales, etc.	13
Statistics, Summary of 1964	6
Still Births	6
Sweetmilk Sampling; Particulars of	23, 24
Swimming Baths	
Tipping Grounds	29
Training of Public Health Inspectors	20
Tuberculin Tests, School Children	87, 88, 96
Tuberculosis, Notifications	18
Tuberculosis, Respiratory System; Deaths and Death Rate	6
Tuberculosis in Animals	75
Typhoid Fever	16, 17
Ultra-violet Light Therapy	102
Unfit Houses	24
Vaccination	18, 19
Verminous Persons	71
Vision, Colour, in School Children	96
Visual Acuity, School Children	95
Vital Statistics, Summary of	6
Water Closets; Flusing By-Laws	27
Water Supplies	21-23, 40
Weights of School Children	91
Whooping Cough	6, 18

